





PLATE I.

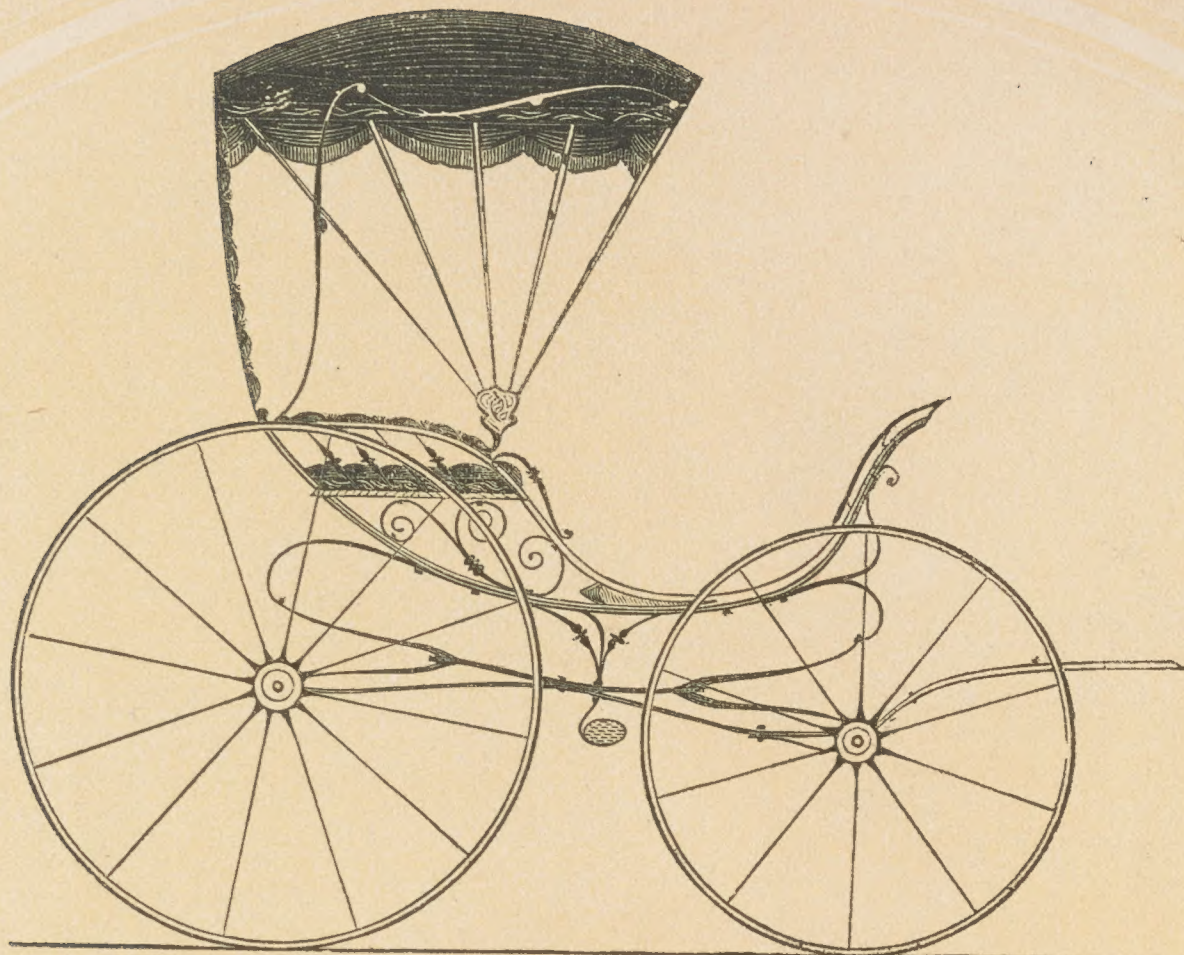


Fig. 1.—Saladee's Skeleton Fneton.

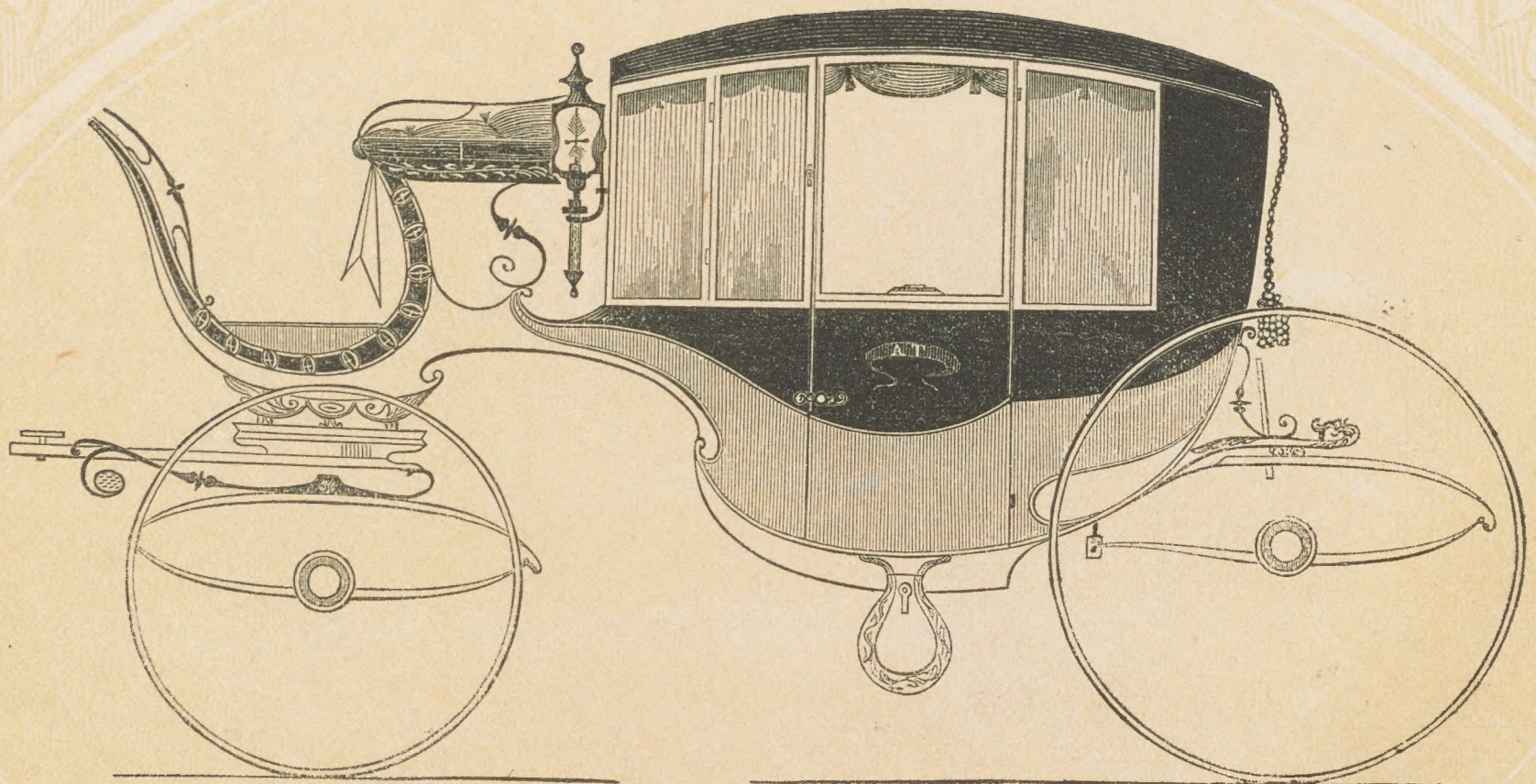


Fig. 2.—The Spanish Coach.

PLATE II.

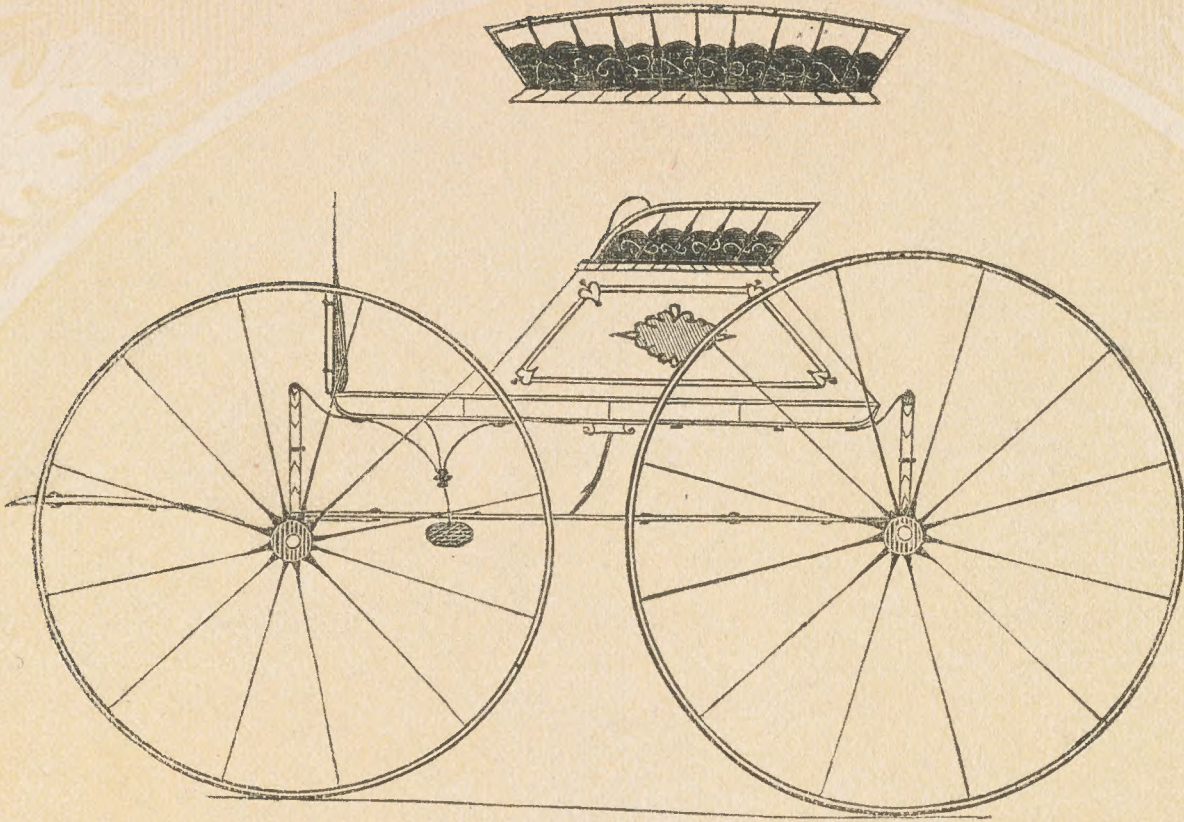


Fig 3.—Stratton's New York Trotting Buggy.

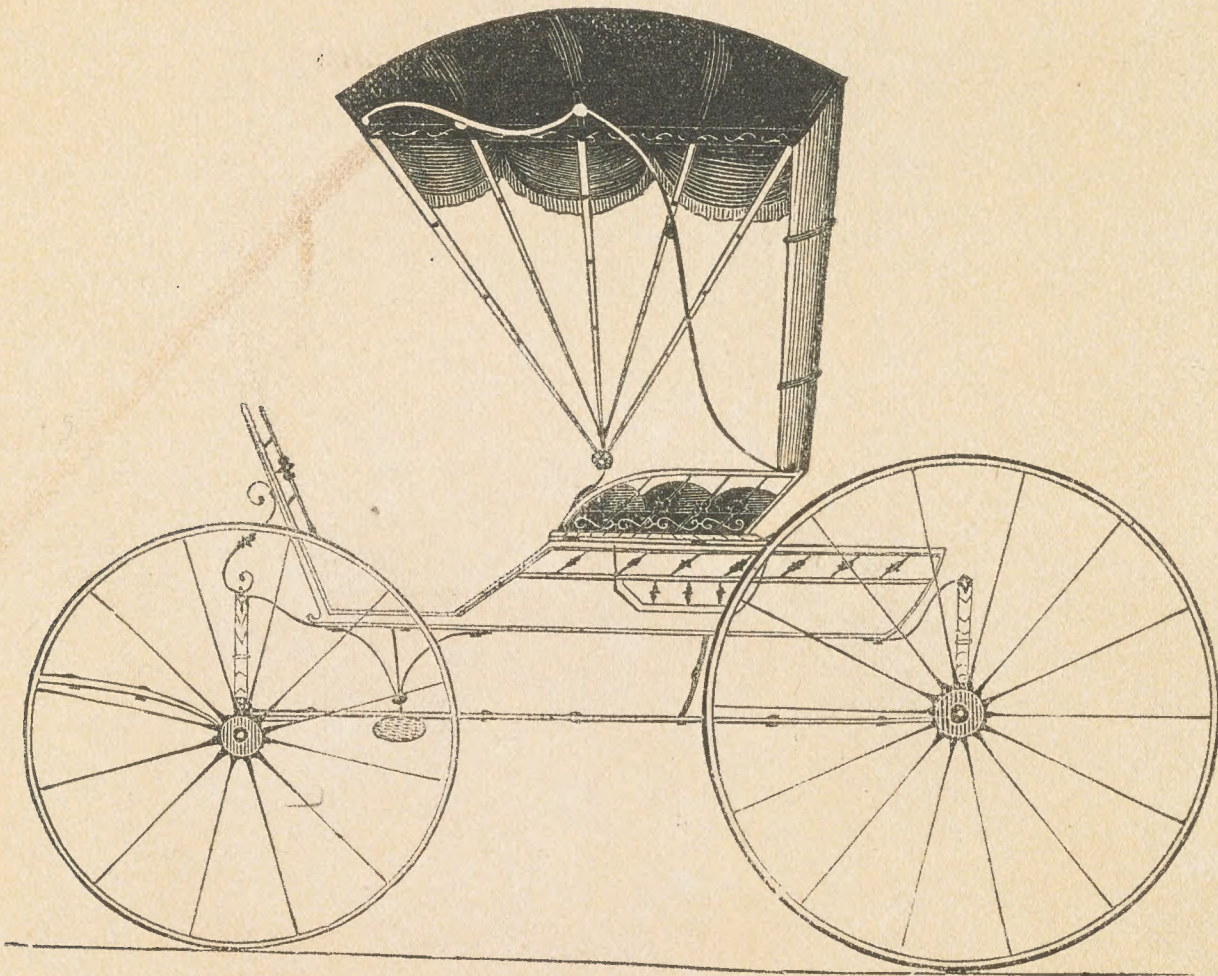


Fig. 4.—Sliding Seat Phaeton.

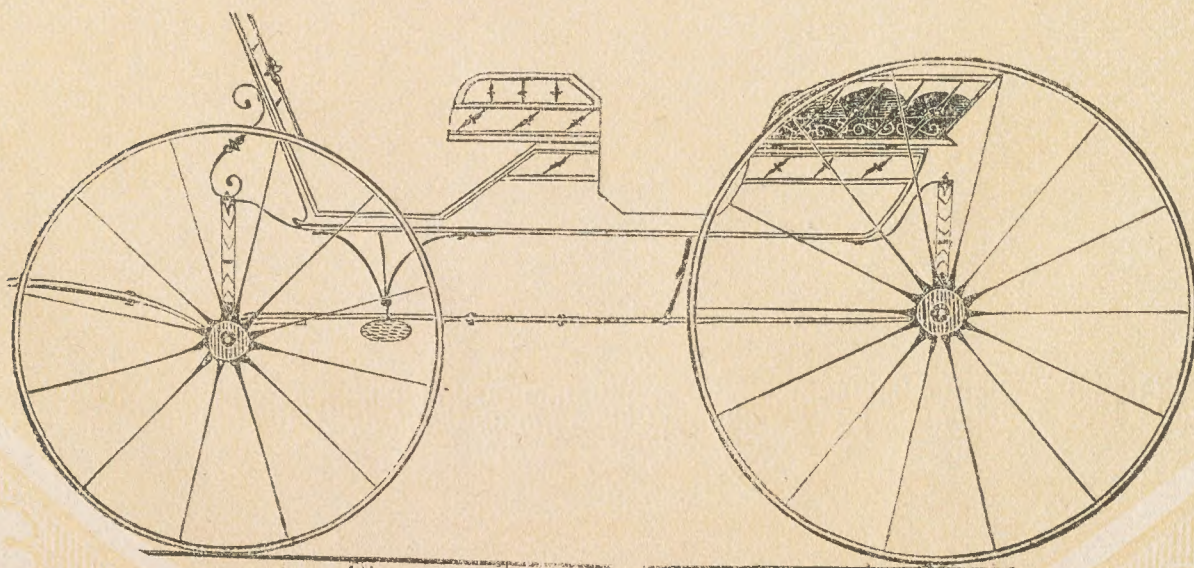


Fig. 5.—Sliding Seat Phaeton.

CISCO'S PATENT COUPLING FOR CARRIAGES.

Fig. 1.

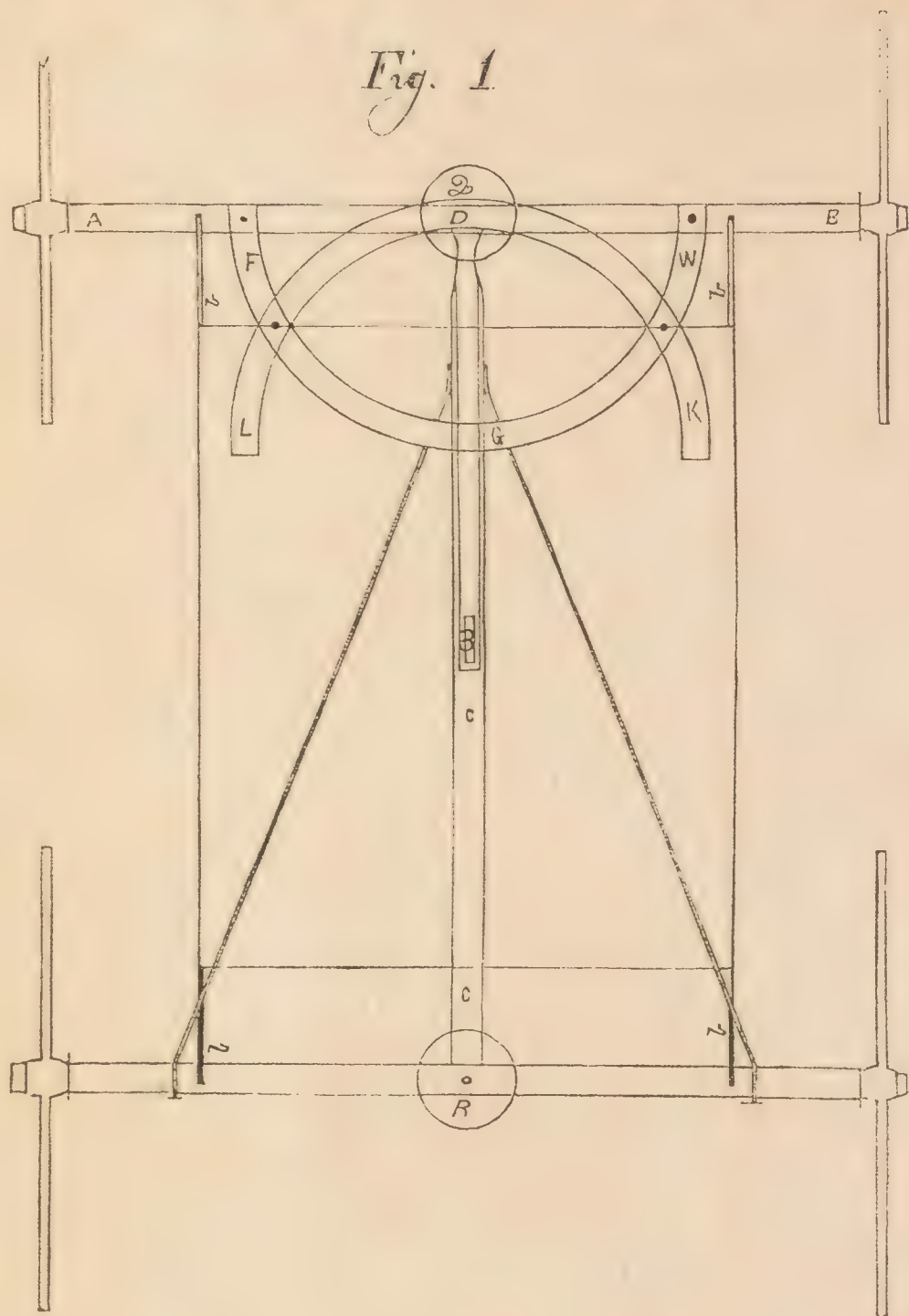


Fig. 2.

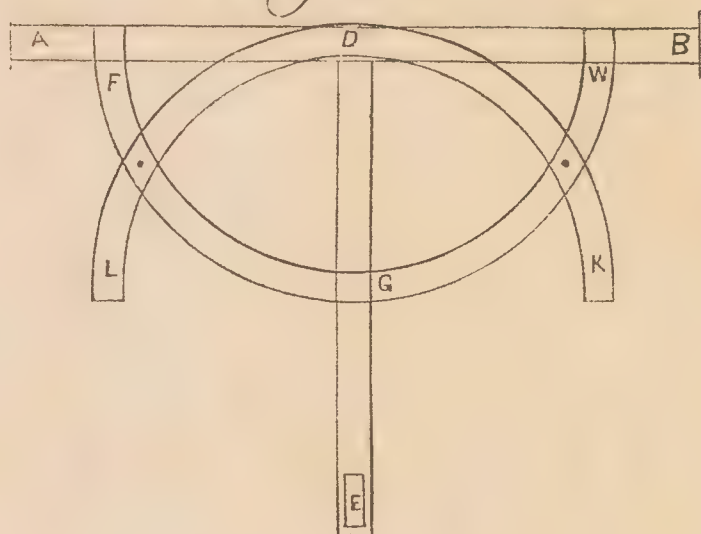


Fig. 4.

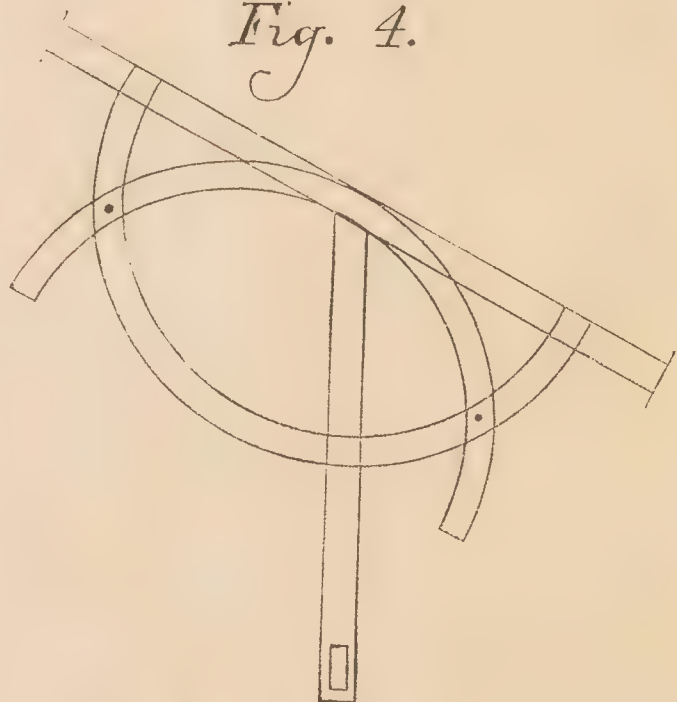
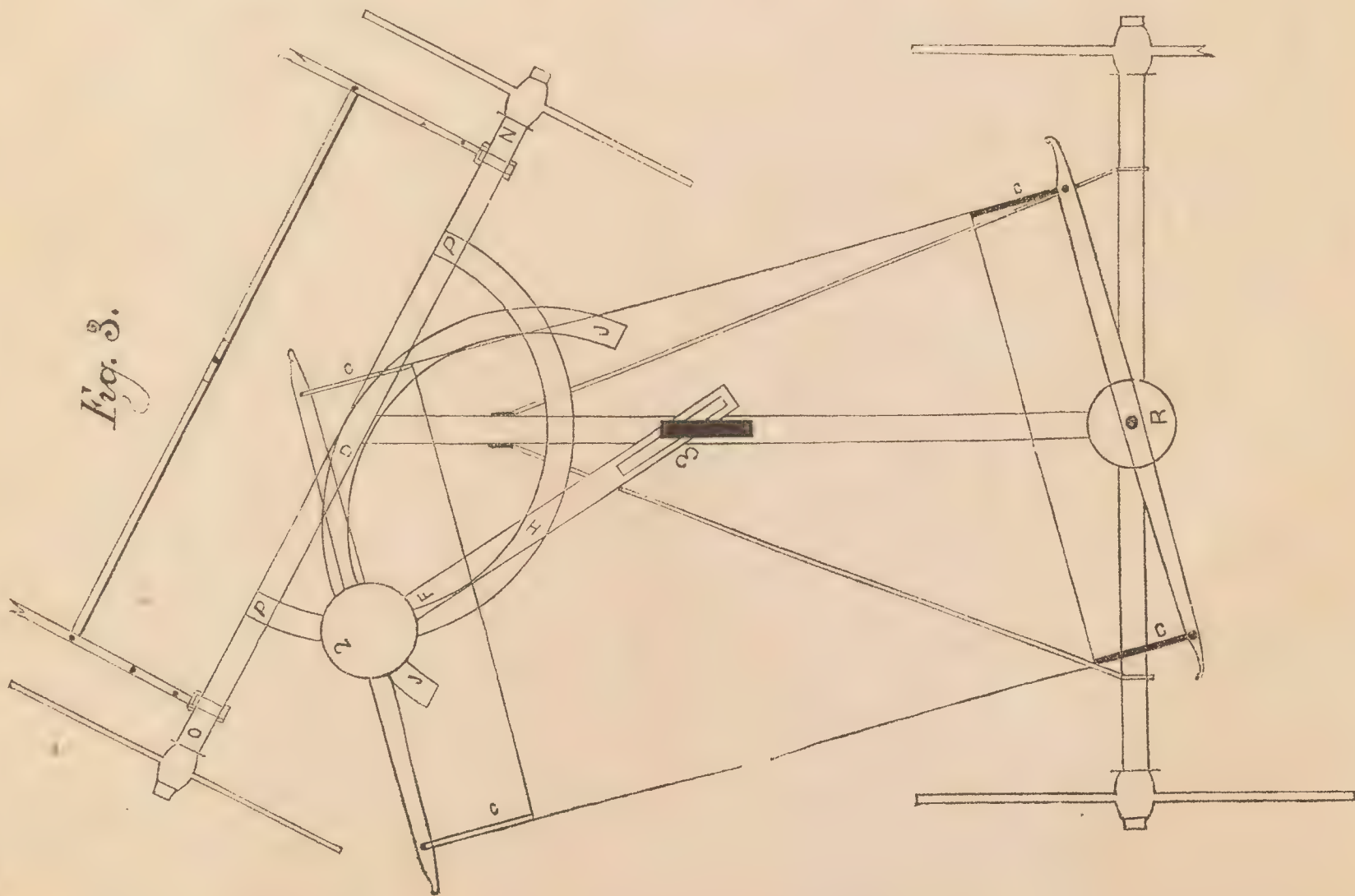


Fig. 3.



To our brother Craftsmen throughout the U. S. and Canada is most respectfully dedicated

"THE COACH-MAKERS' ILLUSTRATED MONTHLY MAGAZINE," FOR 1856.

A LETTER TO OUR READERS.

Behold the New Year has arrived, and with it has come the Coach-Makers' Monthly Magazine for 1856, decorated with a New-Year dress. And now may we inquire how we have succeeded in selecting a garment and arranging its different parts so as to gain your approval universally. An unmistakeable voice through the medium of Uncle Sam, we fancy, has already reached us with the assurance of your approbation. Indeed, how could it be otherwise, after you have looked this No. carefully over and observed its marked improvements, not only in its appearance of dress, but its interest and practical utility.

We have now commenced the second volume of the Magazine, and (as we have already informed our readers) during the past year, achieved an unparalleled triumph. When the first No. appeared, so far was it superior to any thing of a mechanical nature ever before published, that it induced many of the modern prophets to stand forth and predict that it must either be increased in price or surely fail; and many of the old fogies in our fraternity smiled contemptuously at the folly (as they termed it) of attempting to publish a Magazine which should be devoted exclusively to coach making, and welcomed it with the certain prediction that it was destined to an untimely grave. In the meantime the laudations of the press throughout the country were unbounded; complimentary notices flowing in upon us by hundreds; subscribers began immediately to roll in with a rapidity beyond all previous calculation. Encouraged by such evidences of favor, we have made arrangements (as the present No. will show) to make the present volume of the Magazine far superior to the last one. And what we now have to say is, that if every one of our readers who are interested in the progress of this work will lend a helping hand by way of soliciting their friends in the craft to form a club or otherwise subscribe for the Coach-makers' Magazine, we shall have a larger subscription list, and consequently a wider circulation than any other monthly mechanical journal in the United States.

Our Craft have already received a flattering compliment from the public, and the press, that they are the first in the world who have proven themselves abundantly numerous and able to maintain and support a monthly periodical exclusively devoted to their own interests. Being the pioneer of such an enterprise, we feel an honest degree of pride in presenting to you this No. of a new volume so materially improved in all its parts.

And now will you one and all extend that influence in behalf of our Magazine which duty prompts you to give? if so, show this No. to your friends, and if the wood workman inquire whether his branch is advocated, the trimmer, the painter, the ironer or the wheeler, show him the following

Prospectus for 1856.

The Magazine for 1856 shall be devoted exclusively to the art of Coach-making in all its various branches, under the following heads:
1st—Carriage Department.—Explanations in wood-work—Ironing, with illustrations—Communications, &c.
2d—Trimming—With monthly Illustrations.
3d—Painting—With practical observations from experienced Coach Painters.
4th—Editorial.—5th—Miscellaneous Articles.—6th—Historical.

To each of the above departments will be imparted an interest that will meet the most sanguine expectations of the different classes for whom they are intended. Under the first head will be given all the necessary explanations of the drawings illustrated on the fashion plates in the wood department, together with the ironing, accompanied by illustrations, also communications, and the various rules and modes of building carriages, &c. &c.

THE TRIMMING DEPARTMENT.

This will be edited by one of the most experienced and fashionable Coach trimmers in New York City, whose services have been secured for one year from Jan. 1st, '56, who will furnish practical and fashionable illustrations for each No., with explanations of the same, &c.

PAINTING.

This department will be open to contributions from various coach painters whose services are also secured for the coming year. This part of the Magazine will be peculiarly interesting to the carriage painter in general, as it will contain from time to time practical observations from the most scientific coach painters in this country. Much can be said and written on this subject with profit to the reader.

EDITOR'S TABLE.

The matter appearing under this head shall be of a character that will render it instructive and interesting to the craft in general.

MISCELLANEOUS ARTICLES.

Selected for the amusement of the reader, consisting of Poetry and choice miscellaneous reading.

HISTORICAL.

This part of our work shall be continued through the coming year, representing historical facts and illustrations of the ancient modes of locomotion in carriages, &c.

TERMS OF SUBSCRIPTION TO THE NEW VOLUME.

Single subscription, one year	\$3 00
Clubs of three	8 00
" " six	15 00
" " ten	20 00

Papable invariably in advance. All Clubs, however, must be sent to one address.

Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented, stamped on the cover in gilt letters.

All Communications must be addressed to the Editor at his residence, Columbus, Ohio.

OFFICE of the COACH-MAKERS' MAGAZINE in Columbus, Ohio, Buckeye Block, Broadway.

OFFICE of the COACH-MAKERS' MAGAZINE, New York, 106 Elizabeth St., E. M. Stratton, Assistant Editor and Agent for New York. All subscribers in the city of New York will pay their subscriptions at our office there.

CLUBS.—Any individual belonging to a Club and should change his place of residence after he has thus subscribed, can have his copy forwarded to any locality by notifying us of his removal, stating the club he belongs to, &c. And should any one who has sent in his single subscription, afterwards forward names at different times till a number sufficient to form either of the above clubs, will himself be counted as one of the club, and entitled to the premiums awarded thereto.

ADDITIONAL PREMIUMS.—Each person sending us a club of twenty, shall receive, in addition to a volume of the Magazine in gilt binding, one volume of the Coach-makers' Guide for 1855, and one do for 1854, or in place of this, we will publish fifty large show charts, with the name of the manufacturer, and such advertisement as he may desire printed in the centre, in two colors, illustrating from twenty to twenty-five fashionable carriages. These will be very valuable as an advertising medium to every carriage proprietor, but of no use to the journeyman. Or, in lieu of this, should a club of twenty be forwarded by the proprietor, and he would prefer, two stereotype plates from any of the carriages illustrated in this volume of the Magazine, from which he can have his own circulars printed, we will forward them.

All bank bills current at home or from where they are sent, will be received at par for the Magazine.

CONTENTS OF THE DRAWING DEPARTMENT OF THE NEXT NO.

Fig. 6.—FOUR PASSENGER ROCKAWAY, SPANISH TOP—New.

7.—CRANE NECK COACH—New.

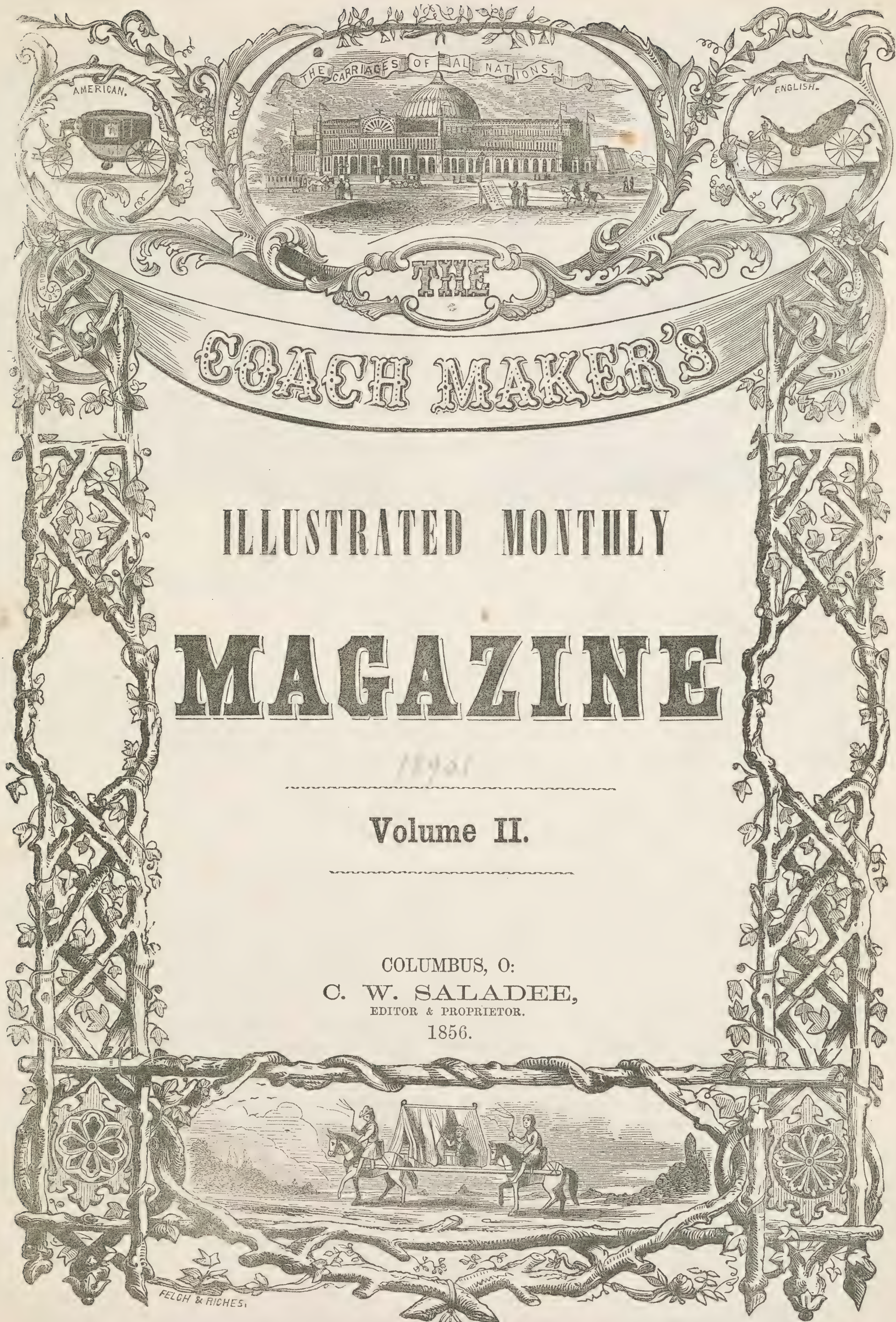
8.—SALADEE'S THREE WHEELED EQUIROTAL PHETON—Original.

9.—CANADA BUGGY—New.

10.—SALADEE'S SKELETON CITY PHETON, 6 PASSENGER—Original.

We feel no delicacy in saying that the Feb. No. of the Magazine will far surpass in point of originality, variety and utility, that of any previous No.

C. W. SALADEE, Editor and Proprietor.



AMERICAN.

THE CARRIAGES OF ALL NATIONS.

ENGLISH.

THE

COACH MAKER'S

ILLUSTRATED MONTHLY

MAGAZINE

Volume II.

COLUMBUS, O:
C. W. SALADEE,
EDITOR & PROPRIETOR.
1856.

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VOLUME II.]

JANUARY, 1856.

[NUMBER 1.

TERMS:

Single subscription one year	- - - - -	\$3 00
Clubs of three	- - - - -	8 00
" " six	- - - - -	15 00
" " ten	- - - - -	20 00

Payable invariable in advance.

All Clubs, however, must be sent to one address.

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Office of the Coach Makers' Magazine, New York, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for N. York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

All advertisements for a shorter time than twelve months are charged 50 cts per line for each insertion; Payable in advance.

Fashions for January.

FIG. 1.—SALADEE'S SKELETON PHÆTON.

This Phæton, the design of which is original with ourself, we consider a very desirable model for light ornamental vehicles of this denomination, and if constructed as illustrated, is withal very durable. The design, however, is not limited to the skeleton finish represented by our engraving, but is equally applicable to solid or pannel side work, thus making it a pattern which can be applied to either the most expensive and fanciful phæton, as well as to the most ordinary and cheap class, and therefore will prove itself a desirable model both to the extensive and limited manufacturers.

We have attached to the carriage the Sprout Springs, for the reason that we cannot imagine a vehicle of this class perfect in all its parts without them. The drawing will fully explain its mode of construction.

FIG. 2.—THE SPANISH COACH.

This is another of the fine drawings from the original pencil of our general agent, Mr. Terrill. It combines oddity, style, grace and beauty, together with strength and lightness in its form of construction, therefore it is useless to say to those who are engaged in the manufacture of this kind of work, that it is a magnificent design, and we will only remark by way of explanation, that the white space at the bottom of the back quarter is so constructed as to be left open, which at once imparts to the side elevation of the body a light and elegant appearance.

FIG. 3.—STRATTON'S NEW YORK TROTTER BUGGY.

The draft which accompanies this article, and which so well delineates the peculiarities of an open elliptical spring buggy, used by a portion of the fancy in this city, has been very carefully drawn from one in our repository by a young artist in our employ, and is his first attempt to draw by a scale. The seat is set very high, as will be perceived by a glance at the draft, and is made very narrow, say 2ft. 8 in., in order to lessen the weight of the buggy, and to give room for two persons only; their extreme lightness forbidding the carrying of more with safety.

These buggies are sometimes made as light as 200 lbs., and when half elliptic in front and back, and wooden side springs are applied, are made to weigh considerably less. To this description of buggy (and indeed for many top buggies) the nut axle is used; generally the half-patent taper, since by reason of the small diameter of the box they are well accommodated to the 3½ in. hub now put in the wheels. The draft shows an apron rolled up between the foot iron and the dash; the object in this arrangement is to give the lightest possible appearance to the dash, although this appendage is frequently left off altogether, as it is supposed that the class of persons using these vehicles will never venture out riding when the clouds in appearance indicate the least chance of their getting sponged before completing their journey; and even some old fogies, now far behind this age of young America, have been found assert-

ing, perhaps uncharitably, that no one whose life is estimated to be of the least value either to himself or his friends, would ever so far overstep the bounds of prudence as to trust his precious person in vehicles of the class now under notice. For our part we think it exhibits an example of real courage, worthy of the best days of the Revolution, and besides, gives the carriage-maker an evidence of their desire that he should receive as extensive a patronage as possible, and for this reason, if for no other, they shall receive one commendation.

E. M. S.

For Saladee's Magazine.

FIG.'S 4 & 5.—SLIDING SEAT PHÆTON.

MR. SALADEE:—Since you have already done me the honor to represent some of my feeble productions in the Coach-maker's Magazine, I venture again to offer something for publication in the shape of a Sliding Seat Phæton, which is in part original with myself. Fig. 4 represents the carriage as it appears when but one seat is in use, and Fig. 5 exhibits its appearance when both are employed. In this latter drawing it will be observed that the back seat extends back of the body. The object of this is to impart lightness to the general appearance of the carriage in either or both positions. Suppose, for example, the body extended back far enough to be flush with the back of the seat. In this latter position there would be no particular objection to such an extension of the body; but suppose the front seat is thrown back into its arches, and the back seat is moved forward to its intended location, you will at once perceive an ill proportion in the back end of the body, for the reason that that part extending back of the seat is much too long, consequently it gives the appearance of clumsiness. To obviate this evil, I do not permit the back end of the body to extend a greater distance than in the ordinary box bodies; therefore when it is used as a one seat carriage, it has the appearance of such in every particular. These drawings being correctly drawn to the scale required, any further explanation of them I consider useless.

Yours, &c.,

J. E. M.

CISCO'S PATENT COUPLING FOR CARRIAGES.

In the drawing department of this No. we give an illustration of the above named improvement. A few days ago we had the pleasure of riding in a carriage to which one of Cisco's Couplings was applied, and are convinced that it fully obviates many of the difficulties attending the use of the Everett Coupling. A carriage with this coupling is governed on precisely the same principal as the old plan of connecting the front extremity of the perch to the centre of the axle by means of a king bolt. The perch to the Cisco coupling is in like manner permanently connected to the centre of the fore axle, and thus it does not effect the control of the vehicle in the least, and consequently that horizontal motion to the front of the body in the Everett coupling entirely obviated. More information can be had by letter addressed to J. L. Cisco, Xenia, Ohio. The following is copied from Mr. C.'s Letters Patent:

NO. 13,487.

THE SCHEDULE REFERRED TO IN THESE LETTERS PATENT, AND MAKING PART OF THE SAME.

TO ALL WHOM IT MAY CONCERN:—Be it known that I, John L. Cisco, of the town of Xenia, in the County of Greene, and State of Ohio, have invented a new and useful apparatus to be attached to the common coupling and running gear of carriages, for turning wagons and carriages short, by moving the front end of the body sideways out of the way of the fore wheel, without bringing

the fore wheels in collision with the body, and do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification in which Fig. 1 represents the top plane of the running gear.

Fig. 2 represents the apparatus consisting of two half-circle plates, and sliding bar, which being attached to the ordinary running gear and coupling of a carriage, moves the front end of that body to one side, out of the way of the wheels, when the carriage is turned short. The half-circle bars or plates M G F and K D L (fig. 2) are made of flat bar iron, $\frac{3}{8}$ in. in thickness and $1\frac{1}{2}$ in. in breadth, formed to a half-circle on a one foot radius. The sliding bar D E is made of bar iron of the same size as the iron for the half circles, and 24 inches in length, with a mortise through the end at E 3 inches in length, and three-fourths of an inch in width; the fore end of this mortise at E being 9 inches from the bolt G and running back 3 inches, as seen at E (fig. 2). D C represents the line of the perch coupling, the front and hind axles. At E (fig. 2) a strong bolt is passed through the mortise of the sliding bar and through the perch and fastened at the underside. This bolt has a broad flat head extending back so far as to cover the mortise. The half circle or bar plate M G F, fig. 2, is fastened on the top of the front axle with bolts at M and F, and is also fastened to the lower side of the sliding bar D E at G, and the half-circle bar or plate L D K is fastened on the top of the front axle at D and passes over the first described bar or plate. On the fore end of the sliding bar D E at D the head block is fastened, on which rests the elliptic springs. The line A B (fig. 2) represents the position of the front axle. Now, when the carriage is turned, for instance, to the left, as in the drawings, and the front axle brought on the line N O, (fig. 2), then will the half-circle bar or plate L D K stand at J D I (fig.'s 3 & 4) and the fastening G be moved over to H and consequently the sliding bar will be at F H E, the long mortise allowing the bar to slide endways so as to follow the motion of the half circle bar M G F, & F will be carried round to P. The long mortise is now seen at E a. The front end of the sliding bar being at F then will the head block, elliptic springs, and spring-bar all be moved over to the right as seen in figure 3, consequently the position of the body will be changed from b b b b to c c c c. The elliptic springs set on the hind axles in the usual manner of the elliptic springs at the middle of each, and on the underside are fastened to the "fifth wheels". Q & R (fig. 2.) and the spring bars at each end of the body are fastened on the upper side of the springs so as to allow the hind end of the body to pivot on the "fifth wheels" at R—and the elliptic spring to pivot on the head block at Q.

When the carriage is standing straight, the body loop on the left hand side is seen at b b which shows that the fore wheel would come in collision with it before the front axle could be brought round to the position as seen at N & O. (fig. 3.) But by means of the apparatus above described, when the fore wheels are brought into the position at N O the body loop will be at c c keeping out of the way of the fore wheel in turning. The perch D C is fastened into the centre of the front axle in the usual manner with a king bolt. The fifth wheels Q & R are six inches in diameter giving a full bearing of six inches for the springs, as the construction and operation of "fifth wheels" are well known to carriage builders, a particular description of them need not be given here.

By using this apparatus a carriage can be turned short without bringing the fore wheels in collision with the body, and without turning the hind wheels in a contrary direction from the fore wheels. The front "fifth wheel" may be placed between the head block and elliptic springs so that the springs rest upon the "fifth wheel," and by this arrangement the spring bar and springs (front) will always keep the same position at right angles with the body.

What I claim as my invention and desire to secure by Letters Patent, is the application of the apparatus before described in turning carriages short—consisting of the half circle bars or plates and sliding bar attached to the running gear, as herein described, in connection with the fifth wheels, by which, in turning short, the body is carried out of the way of the fore wheels, in manner as herein described, or any other apparatus substantially the same, producing the intended effect.

I. A. SEXTON, } Witnesses.
T. MARSHALL, }

JOHN L. CISCO.

COMMUNICATIONS.

For the Coach-Makers' Magazine.

A COACH-MAKERS' VISIT TO THE CRYSTAL PALACE.

This monument of speculative folly, which even the Prince of humbugs himself was never able with all his cleverness to make remunerative to the stockholders, and consequently precipitately backed out from the concern, is situated, as most of our readers have heard, on the Sixth Avenue between Fortieth and Forty-first streets, in the city of New-York. This year the managers of the annual Fair of the American Institute have hired the Crystal Palace as a proper place for their miscellaneous exhibition, and we must confess that one more suited for the purpose in every respect could not well be found. Plenty of light and ample room, two very essential requisites in a public exhibition.

As the principal object of our visit to the Fair this year was the inspection of the specimens of carriages there being exhibited, we shall dispatch what we have to say concerning the display of articles not in connection with our department of the useful arts, in a very few words. A large portion of the statuary which constituted so prominent and interesting a feature in the World's Fair, and representing the heroes and heroines of antiquity, and some illustrious personages of more modern date, still remain. Among the most curious, and at the same time useful articles which we saw there, were beds so constructed, that by the simple will of the operator they were instantly turned into secretaries and desks. Another bed with an alarm clock so arranged that in case the occupants did not heed the warning the friendly clock gave, the bed would instantly tumble any drowsy recliner thereon out upon the floor. This latter description of bedstead impressed very strongly upon our mind the fact that they would be a capital thing in the house of every coach-maker who was so unfortunate as to have lazy apprentice boys in his employment, and it would doubtless very essentially contribute towards supplying that lack of *industry* and *enterprise* which our worthy co-laborer, the Editor of this Magazine considers so very requisite in a successful boss coach-maker, and of which, alas! so many of us stand in need of. We saw many other things there, and there were other things we did not see, doubtless, for we are ready to admit that nothing had as much interest for us as the productions of our own craft, and we were only sorry when we found out that the variety on exhibition this year was, indeed, very limited. But as our distant readers, it is presumed, will be gratified as well as pleased to hear something of what is doing in this locality among carriage makers, we shall give a passing description of what we saw there.

Near the entrance on the Sixth Avenue stands a very neat and plain top buggy, calling for no special description from us, as it differs but little from the ordinary productions of the Messrs. Miner and Stevens of Broadway, but still in striking contrast with those exhibited by their neighbor Mr. Ham, who, judging from his specimens, appears to think, that the chief beauty of a carriage consists in the putting on of as much carving as possible, for he has literally covered his carriage parts therewith. We hope our brother will not feel aggrieved if we tell him that his taste and ours are widely different in many respects, and besides we have always found, the more neat and plain we could finish a carriage, the better it took with a discerning and sensible public; still he will find his taste admired and rewarded, and enterprise such as his deserves its reward. In a glass case near the above, stands a buggy with Hubbard's Patent Spring attached, got up with much care and expense, manufactured by the Messrs. Bradley & Woodruff, of Rahway New Jersey.

On the second floor Mr. McKinstry makes a very showy display of New Haven made buggies, but they conflict so much with the tastes of this city, that we must pass them by without further remark. Mr. J. G. Smith, of Thirteenth Street, exhibits a square-bodied, no top buggy of a construction quite novel to this kind of vehicle, but evidently adapted thereto in the elevation of the seat, from that often seen in the French Caleche. The workmanship is very good, much better than some of more showy pretensions standing in its vicinity. Mr. Wm. Benson, of Twenty-third street, exhibits, in our judgment, the best no top buggy in the building. The body is of rosewood, perhaps a little too much curved for general observation. The dash is of an original and beautiful form and finish, and the carriage part without paint and varnished, is of unexceptionable construction. He values it at \$150. Our friend

Tilton has a sulky and a business wagon with his patent wheel already illustrated in this Magazine, but they do not present in these examples that lightness of appearance which is claimed for it by the patentee.

The Phoenix Co. at Stanford, Conn., presents a buggy of very light construction on suspension springs, of the description illustrated in our work for Nov., and is very well got up. Mr. Martin, of Tenth avenue, exhibits a buggy with half elliptic side and end springs, so constructed and arranged as doubtless to make them very easy riding. There are a few other carriages in the exhibition, but calling for no special notice in this article. We notice that all the carriages in this show this year have the half-patent, or nut axle to them instead of the mail, and we take this opportunity to remark here, that we think the half-patent axle will eventually in a great measure, supercede all others. Another observation we made in our visit was this,—the larger portion of the buggies were exhibited without the carriage parts being painted; merely varnished. This kind of finish has prevailed extensively in this locality the past season, and is still preferred by many of the fancy around the city of New York. In addition to the above is shown a model of the omnibusses now being built for the Mount Washington carriage road in New Hampshire, of which we are promised a drawing, and description for a future No. The improvements consist 1st, in the arrangements of the seats. 2nd—The breaks are applied solely by horses. 3d—The body is always on a level, whether ascending or descending the mountain. 4th—The application of the brake by the feet of the driver, by a wheel. The exhibitor claims, that in the arrangements of the seats he has successfully destroyed the occupation of the whole fraternity of light fingered gentry, and if so, he certainly has won for himself an immortality that will never perish, and his name must be inscribed upon the pillar of fame with the long catalogue of others who have benefitted the human race.

In addition to all we must not pass over our new made friend Mr. J. H. Fisher, of 234 East Broadway, whose steam carriage (of which he presents a model) is to annihilate our whole fraternity by destroying our occupation as Othello's was. He estimates that a carriage on common roads for private use will cost about \$1500, and to run at about 1½ cts. per mile. A steam stage will cost about \$2300 in the getting up and about 5 cts. per mile to run it at the rate of 20 miles per hour. He too furnishes us a photograph for our Magazine.

We also saw in operation the self-acting lathe capable of turning off four wagon hubs per minute, which will be found fully illustrated and described in the *Scientific American* of the 11th of Aug.

E. M. S.

For Saladee's Magazine.

HOW A PATENT FOR THE EVERETT COUPLING WAS OBTAINED.

MR. SALADEE—*Dear Sir*: In the August No. of the Magazine, you had occasion to make some remarks respecting the contention that was then and is now going on between myself and the Messrs. Everetts in regard to the Patent Coupling which those gentlemen have the honor of claiming. I admired the frankness expressed by your remarks (on page 89 Aug No. Mag.) and I would now admit that your conclusions were correctly and justly drawn, if the grounds upon which you based them would have been correct, as I have before informed you that no allusion whatever was made to my first or original patent. Taking the view of the subject you did, with but my last dated patent before you, it is not strange that you drew the conclusion so frankly expressed in the Aug. No., and indeed under such circumstances you could not by any honorable means avoid it. But, sir, I wish now to lay before you and your multitude of readers *facts* with *dates* that will prove my *priority of invention* and show up the trickery practiced by the Everetts to wrong, and may I not add swindle me out of my just rewards.

I claim to be the original inventor of that improved coupling for carriages so favorably known in this country, and sometimes sold as Everett's *improved* coupling, when the fact is they *never* made such an improvement. I have sent for your perusal my original letters patent, from which you will see by the annexed drawings and explanations thereto, that what I assert is correct, for which patent I filed a caveat, as you will see, on the 24th day of October, 1850. Please bear that in mind as we proceed. The first intelligence I ever received of the fact that E. & C. Everett had applied for a patent, was by a letter from the Patent Office dated Feb. 8th, 1851,

in which an interference of my application was declared, with that of the Everetts, and a day of hearing granted on the third Monday in March, 1851, which interference was rejected and dissolved on Feb. 25th, 1851. Letters patent were granted to the Everetts on the 17th day of Dec. 1850, as I have before informed your readers by mistake. Everett's caveat was filed as you are aware, Nov. 15, 1850 which shows that my application was made about a month prior, but notwithstanding all this, it was overlooked; and I repeat, a patent granted to Edward and Charles Everett by *mistake*. Let the following few lines, which I copy from a letter now in my possession, which was addressed to the Hon. C. M. Ingersoll from the Patent Office, under date of Sep. 10th, 1851, substantiate the above assertion, viz:

"When Everett's application was examined in the regular course of business, it became necessary to examine the caveats, and accordingly they were examined; but Haussknecht's was overlooked by accident of the officer having that duty to perform. The patent having been already granted to the Everetts, this office had not the power to recall it, and they would not surrender it, and one patent having been granted by mistake, the error cannot be corrected by granting another."

So much for the validity of Everett's Patent. The first carriage built by the Everetts, (and from which they claimed in their circulars the illustration or drawings,) was taken from a carriage lately constructed, built by Messrs. Hook & Co., Washington, D. C. I have personally seen its progress in 1851, and was informed by the builders that the plan laid down in the Messrs. Everetts' Patent of which a drawing was given to the builders, proved to be impracticable; therefore Messrs. Everetts copied exactly the plan illustrated by my model, which was at that time at the Patent Office, and handed such drawings to the builders. Now, I wish to know by what authority they were admitted to see my model, as my application for a patent had not been withdrawn at that time. The above facts the Messrs. Everetts *dare not deny*. But to commence the fraudulent business they were about to enter into, they first destroyed their originally issued circulars, really illustrating the improvement described in their letters patent, and issued others representing the improvement illustrated by my letters patent and caveat, for the purpose of selling such as their own, and purchasers have never seen the original drawings (or copies) annexed to said letters patent, and the Messrs. Everetts were very cautious not to furnish their agents with such. About that time they offered to compromise the matter before I knew anything of the dates &c., in regard to their patent, and after ascertaining such and refusing to make compromise, I compelled them to enter a suit against me for manufacturing, by which I agreed to pay the cost if carried through. The suit was entered in the U. S. Court at New Haven, State of Connecticut, in 1851. My answers were duly filed, and no movement was made by the Messrs. Everetts or their attorney, and the case has gone by; no other suit has ever since been nor is at present pending in regard to the two patents. As regards the claim of the Messrs. Everett's Patent, it is very easily understood, as making part of said letters patent, and referring to the specification thereof, which has been published in your Magazine. There it is but one improvement described in a certain mode for adoption to carriages, represented as a useful improvement. Such an arrangement is claimed *substantially as described*; these very words cut off the adoption of any equivalent whatever, and according to that no right of such adoption for any equivalent whatever has been granted to the Messrs. Everetts as they claim to have. The disclaiming in my letters patent, of the separate use of one segment is no serious matter, as I have given an explanation to the Commissioner of Patents that such a plan is not practicable, for the reason that a person cannot enter the body on one side without nearly tipping over with the same, and safely entered it will be a dangerous vehicle for turning corners when driving. I have never heard of such complaints on carriages built under my letters patent. The first of such I had running in the city of New Haven, Conn., of which Mr. Killam, a coach-maker of that place was the owner, which I believe he is using now.

The facts above given, show most clearly that I am the original inventor of the said coupling, and I would state in conclusion, that I am willing to *guarantee* to any purchaser of rights under my letters patent, that on constructing carriages on either or every mode described therein, that there will be no interference with any patent

whatever, and furthermore will warrant the plans laid down to be useful and practicable.

Should there be any points wanting more explanation from me, I will cheerfully furnish it by letter or through the Magazine, as may be desired.

Very respectfully, yours,
G. L. HAUSSKNECHT.

For Saladee's Magazine.

The following complimentary and encouraging letter was addressed to the Editor by Mr. R. W. Griffin, of Pa., who nineteen years ago was a journeyman in the shop of the editor's father; and as it was written for the Magazine, we cheerfully give it room:

THE MAGAZINE.—PRESS ON.

MR. SALADEE:—I am not prompted to write you for mere past time, or simply the pleasure of seeing the feeble productions of my pen in print, but from motives of a higher order; those of friendship and of duty. Eminating from that source which bids every man to "Render unto Cæsar the things that are Cæsar's." I would therefore render unto you, Sir, a word of approbation, which is a boon that justly belongs to you, for the able manner in which you have introduced and conducted an enterprise that no man before you has ever had the courage and energy to undertake, and one that is not only placing a wreath of laurels upon the brow of its conductor, but has already proven itself an indispensable help mate to every son within the widely extended borders of our fraternity; I mean the *Coach-Makers' Monthly Magazine*.

Although but one short year has elapsed since this able advocate of coach making made its appearance in our midst, it has already effected a change in the actions and feelings of the craft, that is visible *even* to the most careless observer. It is inspiring new life, giving encouragement to the inventive genius of our craftsmen, and drawing out the value of their minds for the general good of their fellows. Who would not hail with joy the monthly visits of such a messenger?

Nineteen years ago I was in the employment of your father as a jour body maker. I am now reminded of the many changes that have been wrought since then, and of one particular instance you will allow me here to speak. There would come into the shop almost hourly, a very mischievous cur (as we called him) in the shape of a boy about six or seven years old, who proved himself the very *deuce* among our sharp chisels and drawing-knives. Particularly was this the case at dinner hours, when all hands were out, and as they returned to their respective benches, some one was sure to find to his sorrow that there was tools to grind and perhaps saws to file. But what a change is here presented to my view. That same nuisance among tools, (and many other hard things that he was deservedly called,) has proven to be the individual who was destined to become a master workman, and go forth into the world and establish a work through which the whole fraternity of his brother craftsmen should be benefitted, and render his name as it were, a household word in the family and shop of almost every coach-maker throughout the Union and Canada.

Need I, my young friend, say to you, *press on!* Yes; I would say *press on* in the work you have undertaken, knowing that your labors are not in vain, but that a sure reward awaits you. I perceive that it is your intention to visit England for the purpose of introducing the Magazine among the craft there. May abundant success attend you wherever you go, and again I would repeat

Press on, press on, if you would wish
To gain a deathless name;
If you would crave to be enrolled
Upon the scroll of Fame;
If you would wish to be remembered,
You must not dormant be;
Your watchword ever should be this—
PRESS ON to victory.

Or if you'd wish triumphantly,
To ride in the COACH of Fame
To behold on every chariot door
The initials of your name;
Why then PRESS ON, and soon you'll reach
The highly honored goal;
PRESS ON, press on, let it be the word
Of thy unwearied soul.

R. W. G.

OUR AGENCY FOR THE SPROUT SPRING.

An arrangement has just been concluded between ourself and Messrs. Sprout, Burrows & Co., by which we have accepted the sole agency for the sale of their Springs in the following territory, viz: all that portion of Pennsylvania west of the mountains, all the counties in New York bordering on the lakes, also Virginia, Ohio, North and South Carolina, Georgia, Alabama, Mississippi, Louisiana, Iowa, Missouri, the city of Milwaukee, Wis., and the city of Chicago, Ill. Therefore, all orders from the above territory must be sent to our address, Columbus, Ohio, where they will meet with prompt attention. We are also authorized to collect orders in Canada.

Mr. Terrill, our general agent is now on a tour in Ohio, collecting subscriptions for the Magazine, and taking orders for Sprout's Springs. The following communication from him will show how the said springs are received wherever he has introduced them:

RAMBLINGS—NO. 6.

For Saladee's Magazine.

OHIO—Pride of the West, and third brightest star of the Union.—MANNING.

MR. EDITOR:—Just imagine for a moment a fine 2:40 black horse, decorated with fancy plated harness, before a light trotting wagon, with Sprout's Springs attached, in which is seated a kind of short, heavy set individual, whose face is amply covered with beard, driving leisurely along on some fine road in the Buckeye State, and you will have a faithful picture of your general agent as he appears on the public highway of travel.

This mode of travel is not quite so rapid as that of riding on the rail, but no matter. There is one consolation in traveling thus, which is more than equivalent to the time gained by the use of the iron horse, and that is, one is captain of his own craft. There is no fop of a conductor to call out "all aboard," and make you start up as though you had been thunder struck, leaving your dinner half finished, (but the bill *fully* paid); you are not kept waiting for an expected train which gets behind time, and thus try your patience, to say nothing about your temper. All this is avoided, and you get on smoothly; stopping when you please, staying at each place as long as you think proper, and push on when you get ready. There is nothing in the world like perfect liberty, and in traveling the only way to enjoy that important clause of the Declaration is to be master of your own craft.

Ohio—I find it a country more beautiful than I feel capable of describing, but suffice it to say, it is extremely wealthy and prosperous. Leaving the Capital on the 30th Oct., I next found myself in the city of Lancaster, a distance of thirty miles from Columbus. In this place I found several shops, the most prominent of which is that of Mr. Shutt, who is doing a very fine business, and the kind of work he produces gives evidence that he is a master workman. This gentleman highly approved of the Sprout Springs, and gave me a large order for the same. Circleville is another thriving and interesting place, where three shops are being conducted, one by Mr. A. King, one by Wm. Bauder, and one by Wm. Doane, and seemingly all doing a very fine business. The springs so far meet the highest approbation of every person who saw them, and in this place several sets are ordered by Mr. King. From here I shaped my course to Washington, where I found one shop conducted by P. Wendle & Son, who are preparing to do considerable in the way of carriage making. Next to Wilmington is one shop of considerable note for an inland town, whose proprietors are Messrs. Taylor & Son. These gentlemen are subscribers to the Magazine. I also found a jour body maker in their employ, who is one of your subscribers, and highly complimented the Magazine by remarking that so long as he could command three dollars he would never be without it. This, however, is an expression among your many subscribers.

Mr. Taylor, for the first one, did not seem to approve of my wagon, on account of the springs. Before I left, a physician of the place by accident saw it, and had the satisfaction of riding, which resulted in giving Mr. Taylor an order for a buggy with Sprout's Springs, when they gave me an order for the same. A person who once rides on these springs will not feel inclined to use any other if he can help it. Leaving Wilmington, I made tracks for Lebanon, where I found quite a number of your old subscribers, and

met with good success. The Queen city was now my destination and in due time its lofty towers, high spires and the curling smoke ascending from the busy factories within its borders, formed a pleasing picture in the landscape spread out before me, and presently the noise and bustle of the confused thoroughfare in the city fell upon my ears, reminding me very much of the busy streets in the great metropolis, New York.

Cincinnati is indeed a thorough going business place, and among the many branches that are being there conducted, need I remark coach-making is not in the rear. The factories in this city are numerous, and extensive, among which I visited the following, viz: John W. Gosling, Miller & Sons, Roberts & Curtis, Messrs. Bruce & Son, Pummell & Payne, and others, all of whom were highly pleased with the springs, and for which I received an order from each. Your old friend Mr. Gosling, is, I think, among the most extensive coach-makers west of the mountains. The productions of his factory exhibits a variety of style and finish that I have not seen surpassed anywhere. The same can be said of the others above mentioned, so far as I have had the opportunity of seeing, save the two latter which are not quite so extensive, but produce work of which they need not be ashamed to permit the most critical observer to inspect.

After a stay of five days in this city, I departed for Hamilton, a distance of twenty-five miles. This is the most interesting little city I have visited for a long time, and where I found three very clever carriage factories. Mr. John Keen also gave me a large order for Springs.

En route for Dayton, I passed through the pleasant villages of Miamisburg and Franklin. Mr. Bookwalter is doing business in the former place and Mr. Catrow in the latter. Both of which ordered the new spring. I have just arrived in Dayton, but not having been out as yet, to see the sights, and this communication already strung out far beyond my original attention, I will cut it short by subscribing myself

Your ob't servant,
ABR'M TERRILL.

For Saladee's Magazine

SPROUT'S COMBINED SPRING & COUPLING.

The following communication is from the pen of our old friend and brother craftsmen, Mr. Sam'l R. Lippencott, of Richmond, Ia. This gentleman is a practical, intelligent coach-maker, and one who has had an experience in the business, which renders him fully capable of making a correct conclusion as to the utility of any improvement offered to the craft. Of Mr. Sprout's improvement he writes as follows:

MR. SALADEE—*Dear Sir:* Ever since the receipt of the August No. of your (our) Magazine, I have been trying to find time to do justice to an old friend, by laying before you the merits of the Sprout Spring, or rather my experience therein. I have no hesitation whatever, in pronouncing the spring all that Mr. Sprout claims for it; as I have been using them in my factory here some 3 years and upwards, speak from actual knowledge of its merits. I am glad to see you have given it so handsome a place among your illustrations. Before addressing you this note, I have taken the pains to write to several of my customers who have had them in use some two and three years, and am gratified in being able to say that all speak in the most favorable terms. Therefore I pronounce them perfectly durable with a motion at once easy and pleasant, while the whole appearance is very graceful, and in a high degree symmetrical, especially in connection with the Haussknecht Coupling. Therefore I take pleasure in recommending them to the craft; not that I think they will ever supercede or do away with the elliptic, but as a change, and affording a pleasant variety in our ware rooms. In conclusion I will only add, that if any of our craft who desire to patronize a valuable improvement, and send their orders to Mr. Sprout, Hughesville, Pa., will find an honest inventor and a perfect gentlemen.

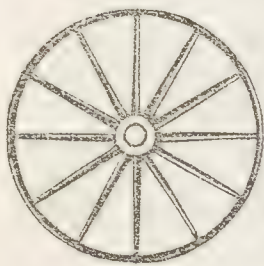
Ever truly yours, &c.

S. R. L.

Good breeding is the result of much good sense, some good nature, and a little self denial for the sake of others, and with a view to obtain the same indulgence from them.—*Chesterfield.*

For Saladce's Magazine.

ON CARRIAGE WHEELS.

*The Hubs—Spokes—Driving Spokes—Dish of Wheels—Rimming Wheels, &c., &c.**"Wheel within wheel, with breathless speed,
Revolving, rolls along."—Ezek. I.—EDWARDS.*

Good, strong, fairly proportioned wheels, which will litterly *wear out*, in active service, and not fall to pieces before they may be half worn out, are parts of a vehicle, which every wood-murderer, and botch, are not capable of making. Indeed, a great many good mechanics, at other trades, cannot make a good wheel until they have served some time at the business; and,

many again, may work at wheels an age, and never be competent to make a first rate wheel. Good wheels almost always, are the criterion of excellence in any kind of a vehicle. The great majority of people look at the wheels first, when about to purchase, or judge of the excellence of a carriage; and, if the wheels are poor, or improperly made—however superior every other part may be—there is sufficient grounds for reflection. The wheels are the basis of a carriage, and it is utterly impossible to have a good carriage without good wheels; and he who attempts to secure a reputation as a good wheel-wright by making anything but a first rate article, will very soon learn, that he is like a man chasing a shadow. First rate timber put together poorly may make a poorer wheel than poor timber well put together. One or two poor spokes, or fellies in a wheel, detracts very much from the value and excellence of a wheel; and a disproportioned, improperly shaped wheel destroys the beauty of the entire vehicle.

There are many things which it is necessary for a wheel-wright to understand perfectly, in order to make a good wheel; among which I may mention the proportion of one part to another—the shape of the various parts, and the dish of wheels.

HUBS.

In order to have a wheel of a fair proportion, the Hub should not be too large, nor too small, nor too long, nor too short. However beautiful and symmetrical a wheel may appear in other respects, if the hub lack a due proportion of diameter, or of length, the beauty of a wheel is destroyed; and, if made preposterously large in the middle and the ends turned off very abruptly, near the spokes the strength of a wheel is materially injured. Another consideration of no trifling importance is the shape of the

SPOKES.

"Cypress for spokes and wheels of wains."—DRIDENS VIRGIL.

Spokes have a twofold service to perform: one is that of a *pillar*—to sustain the superincumbent pressure; and the other is that of a *lever*—the fulcrum and the weight being at the hub, and the power at the periphery, or rim of the wheel. Therefore, the idea which should guide the skillful wheel-wright in constructing a wheel, on true mechanical principles, is this: The spokes of a carriage wheel should be of such a shape and size, where they enter the hub, where they are united with the fellies, and midway between these two points, as will secure the greatest strength, without containing an unnecessary amount of timber, and without one part bearing an undue proportion to the other. Spokes made according to this rule—the two ends and middle being the same size in proportion to the power applied—the pressure sustained—and the resistance to be furnished, (if the hub and fellies are in proportion) will make a wheel perfectly symmetrical, and possessing the greatest possible strength, with the smallest quantity of timber. A good wheel-wright will study the *proportion* of the various parts; he will set up before himself, an imaginary wheel, and, as he constructs one part after another, will wisely inquire whether one end of a spoke bears a due proportion to the other, and to the middle. We often meet with wheels, in the construction of which, so far as due proportion is concerned, every principle in mechanics is set at naught.

Where do wheels, almost always, give way first?

As a general thing, the spokes give way first at the hub, which proves quite conclusively, that the ends of the spokes nearest the hub, were too small. When spokes are made but one inch wide at the hub, and one inch in diameter at the fellies and of a true taper (and hundreds make them thus) there is no due proportion displayed in the mechanism of such wheels, especially, if the wheels be three or four feet in diameter. Some wheel-wrights make the

small ends of the spokes one and a half inches in diameter, round, and the large end an inch and an eighth thick, by an inch and a half wide, with a swell in the middle of the spokes, which gives a very undue proportion, besides presenting a very clumsy appearance, destitute of all symmetry and beauty. There is but little danger of getting the ends of the spokes too small at the fellies. Probably, there is not one wheel in one hundred, the world over, the spokes of which are not more than one-third stronger at the fellies than they are at the hub. Spokes with a little swell in the middle, especially, in rather high wheels, appear more symmetrical, and substantial, than if they were made of a true taper. But the *size* of the spokes, and their shape, should always be regulated by their *length*. As the length increases, the *width* of the spokes, at the hub should always increase, in a corresponding proportion; and, if the wheels are to be made unusually light, and high, a little swell in the middle of the spokes will render them much more substantial, and beautiful.

Setting every alternate spoke the width of it, back, or, one out and one in, is an other important consideration, in making good wheels;—although many contend that a wheel made thus, is not as strong as one where the spokes set in a row.

But, the argument adduced *against* setting one out and one in, irrefragably substantiates the very fact and correctness of the mechanical principle, which it is designed to refute. Another thing of no little importance, is

DRIVING SPOKES.

The primary object, with all wheel-wrights, is to have the spokes placed so firmly in the hubs, that they will never work, nor become loose. To secure so desirable an end, many boil their hubs, and drive the spokes, while the hubs are soft and hot. Others boil the tenons, and then place the boiled ends, for a few moments, against a hot stove, previous to driving, allowing about one-eighth of an inch drive, or, for crushing. But such a preparation of timber, of any kind, where tenacity is required, destroys its vitality, and injures its strength far more than we are wont to suppose. Some wheel-wrights think it absolutely necessary to have hubs of rather soft wood, so that the spokes will crush, from one to two-sixteenths of an inch of the grain of the wood. Some can never get spokes firmly enough, unless they have been driven as tightly as may be, with a four pound hammer. But, it requires no profound logic to show conclusively, that a spoke which has been driven so firmly, as not to crush much of the wood, will resist more than one, where the grain is much crushed by tight driving.

After the grain of wood has been crushed, its natural strength is gone; and if a tenon be much crushed it may require more power to extract it from the mortise, but, it will be no stronger—indeed not as strong—as if the grain were not crushed. But some contend that it is advantageous to crush the grain in the hubs. If hubs are so soft and porous as to require one-eighth of an inch to be crused in driving a spoke, such timber is unfit for hubs. The harder the better: and if hubs are made of iron, or of hard wood, thoroughly seasoned, and spokes made of the best of Sugar Maple, or white Hickory, or the best of white Oak, well seasoned, (not kiln dried) and to season for a few weeks, after they have been dressed for the last time—as many kinds of timber will shrink more or less every time it is dressed—and driven in glue, or white lead paint, as firmly as may be, and not crush the grain but little, wheels will *wear out*, and may be broken to splinters, before the spokes will give one particle in the hub. And if the hubs are mortised neatly as they should be—if the tenons of the spokes are made smoothly as they ought to be, and driven as far into the hub as they ought to be, and the timber of such quality as it ought to be, and seasoned as it ought to be, before putting together, we need have no apprehensions that the spokes will work, nor that the lubricating substance will ooze through the mortices in hot weather, to deface the beauty of a splendid vehicle. Another thing of great importance in making carriage wheels, is

THE DISH OF WHEELS.

This is a very important consideration; and a wheel-wright should know *why* a wheel is to be made dishing, and *how much* dish makes the strongest wheel. Were wheels to sustain a load on no other track than on one which is level, from right to left, it is self evident that wheels made entirely straight—without any dish—would be of the strongest shape. But, as carriages must sustain a load along sloping and sidling tracks, and when they are driven into ruts and

holes, and over all sorts of obstructions, if the wheels were straight they would be easily crushed—the spokes would be broken at the hubs, unless made preposterously large, and very wide at the hub.

Let us illustrate: place a straight wheel—one not dishing—on either end of the hub, and attach weights to the rim; and a few hundred pounds will crush it, by breaking off the spokes at the hub and at the rim. Now, let a dishing wheel be placed on the large end of the hub, and, and it will sustain several tons attached to the rim. So when a carriage passes along a sidling way, or drops into a hole, the greatest weight and strain falls on the wheels on the lower side; and if the wheels be dishing, they have a bracing shape; and, unless the rim bursts, or, there be an extraordinary weight, dishing wheels will sustain a very much greater weight than if they were not dishing.

How much dish then will secure the greatest strength in carriage wheels?

That wheel, which approaches so nearly to a straight wheel, as will not admit of being deprived of its dishing shape by a heavy load, is, most unquestionably, the strongest shape that a carriage wheel can receive. When spokes are set, one in and one out, their width, the front spokes should set entirely straight. This shape makes a very strong wheel; and for fancy vehicles, where the spokes are very light, it does not detract from the beauty of the wheels, at all, while it gives them a very substantial appearance. There is a degree of dish to be given to wheels, from which, if we depart, either by giving more, or less dish, it is done at the hazard of the strength of the wheels. Small wheels require less dish than large ones; and wheels, whose spokes are very wide at the hub, require less dish than wheels of the same diameter, whose spokes are not as wide at the hub. The width of the spokes at the hub, when they are set in a row, should in part, determine the amount of dish in a wheel. The amount of dish should always be increased, as the width of the spokes at the hubs is diminished. From a half inch to an inch dish, in ordinary wheels, will, probably, give the strongest shape. For light sulky wheels, with narrow spokes at the hub, and five feet in diameter, one inch dish is none too much; while, for heavy wheels, with broad spokes at the hub, one inch would be rather too much dish, for the greatest strength. Some wheel-wrights give their wheels but one-eighth, or three-sixteenths of an inch dish; but, as a general rule, it is not sufficient for ordinary wheels.

RIMMING WHEELS

is a branch of carriage making, which requires the exercise of no little mechanical skill, in order to do it well. But, when it is all performed by machinery, he who does not understand a single principle of mechanics, may perform this business in the best manner.

There are two modes of rimming, or, of fellying wheels: one is where the joints of the fellies are midway between the ends of the spokes, doweled together; and the other is, where the tenon of every alternate spoke is in the joint—without dowel pins.

It cannot have escaped the observation of most wheel-wrights, that, when wheels have light fellies, with the joints between the spokes, they soon are deprived of their rotundity, by the fellies being crushed inward, in that part of the wheel, when the joint is in the fellies. When the fellies are only one and a quarter, and one end a half inches deep, it cannot be denied that, for a fancy carriage, the size is sometimes more symmetrical, than if the fellies were two inches or more deep. When wheels are rimmed in this manner, unless the tire is of an extraordinary thickness, and the ways, where the wheels are to run, be very smooth, the fellies will crush, in that part of the rim where the joint is. But, if the joint be made on the tenons of the spokes, allowing the tenon in the joint of the fellies to extend but half way through the fellies, and at the same time, to reach fully to the end of the hole, so that the ends of the tenons may rest on the solid wood, as those which extend entirely through the fellies, should rest against the tire, the rim will be much stronger; and we should seldom meet with that unsightly appearance in wheels—*crushed rims*.

Many wheel-wrights say, "let us have a felly of good breadth, and not very deep, and a very thick tire, and we have a wheel for service." It is not denied, that such a wheel may be stronger, and run easier, under certain circumstances; but, all things considered, it is thought, at the present day, that the wheels of carriages, whose rims are as narrow as may be, and still retain proportional

strength, are the best, and where weight is an objection, and lightness any object, it is far better to increase *depth* of the fellies, and diminish the *thickness* of the tire. When fellies are bent, and the rim of a wheel is in two parts, only, if the fellies are very deep, it would be somewhat difficult getting them on the ends of the spokes, when the tenons extend entirely through the fellies, unless the wheels are unusually large, in diameter—as it is difficult to spring short spokes enough to enter the holes.

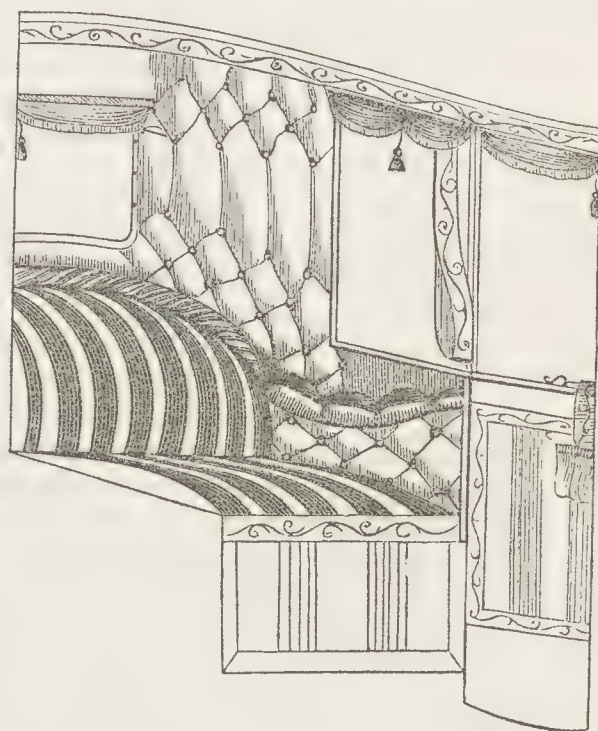
But, there is a difficulty attending wheels, whose fellies are in two pieces only. Unless every part is seasoned in the best manner, and every joint made very tight, both in the spokes and fellies; and but little allowance made for shrinking on the tire, there will sometimes be a kink at each joint of the fellies: which is caused by the fellies rendering, when the tire is applied, all at two places; whereas, in wheels whose rims are in more pieces, there is a chance for fellies to yield under the draft of the tire, around the entire wheel. Cut, by sawing the bent fellies apart, as recommended, page 112, we lose one of the main objects of bent fellies, which is strength.

S. E. T.

Lake Ridge, Thompson Co., N. Y.

TRIMMING DEPARTMENT.

TRIMMING—NO. 1.



The annexed engraving represents a very rich and extremely fashionable style for the trimming of a coach like that illustrated in this No., and was drawn expressly for the Magazine by our regular contributor Mr. McLane, of N. Y. city. The material most generally used for work of this class is either Brocatelle, or Cotateane, mostly drab or a mixture of gold and drab. The back and cushions are a new style of plain plait work, introduced by the French, and is becoming very prevalent in this country, especially among the first class factories. The side quarters are made up of French rolls, and diamond work, as represented in the engraving. We have seen one carriage of this kind trimmed with the plaits in the back and cushions extending across the body. To this practice we have no objections to offer, so far as the back is concerned, but for the cushions such style of finish is by no means appropriate or desirable, for the reason that the plaits will soon become disordered, owing to the perpetual wear upon them, and the friction thereby produced being in a direction contrary to that in which the plaits are drawn. This, however, is not the case in the back; therefore the plaits may be extended across the body with propriety.

The French are also the originators of a very neat, yet flashy style of finish to the fronts of cushions in trimmings of this class. Instead of silk lace they take a very fine piece of black patent leather, any desired width, through which they cut various ornamental figures, after which a strip of white, red, or yellow patent leather is applied to the wrong side of the former, and neatly stitched together; thus the colored leather showing through the figures cut in the black produces a very rich and gaudy appearance.—ED.

Painting Department.

PAINTING.—We have on hand a very interesting and instructive article on painting, by our Mo. correspondent, which from a press of other matter is crowded out of this No., but shall appear in our next issue.

A PHÆTON ON *three* WHEELS.—In the next No. of this Magazine we shall present to our readers something on *three* wheels, in the shape of a light equirota Phæton. It shall be simple in its mode of construction, combining neatness, durability, and great convenience. Its facilities for turning cannot be surpassed, even by the sulky, and for city purposes we are inclined to think there is no light vehicle more appropriate than our *Three Wheeled Equirota Phæton*.

CARRIAGE HARDWARE HOUSE.—We take pleasure in calling the attention of our fellow craftsmen to the advertisement of Messrs. Bouton & Reid, of N. Y. city, which appears in this No. From our personal knowledge of the firm, we think they are perhaps the most extensive dealers in Carriage Goods to be found in this city. They are gentlemen who have been long and favorably known to carriage makers all over the country, as keeping a large and well assorted stock of every thing pertaining to the trade, and on terms that cannot but meet the approbation of all who may see fit to extend to them their patronage. E. M. S.

LONDON OMNIBUSES.—PARISIAN MODE OF TRAVELING IN LONDON.

We gather from our late file of English papers, that arrangements are being made for the formation of a Company in London, with 500 omnibusses, to commence operations this month, and to run them on the Parisian plan of "correspondence," an entire novelty with the English public. By this mode the 500 omnibuses will be enabled to do the work of 600, at an expense to the passenger of about 2 cents per mile. The basis of the company's operations is to be cheap fares, combined with other advantages to the community, which a large company whose vehicles are circulating through every part of the metropolis can alone offer, with the same rate of speed maintained as at present, but racing and other annoyances incident to violent competition will be got rid of. An unceasing current of omnibuses is to be kept in motion, one succeeding the other as rapidly as the wants of the public may render it necessary. The drivers and conductors are to wear a uniform, and each man will have a number on the collar of his coat, so that in case of misconduct, he can at once be identified. At the head of the management are to be two very experienced omnibus proprietors and thus secure to the operations a completeness and uniformity not found in this mode of conveyance when directed by many individuals, with separate interests; this company being composed of about the whole of the omnibuses now running on the leading lines of thoroughfare between the eastern and western suburbs of the metropolis, and several of the north and south communications. Each of the omnibusses will have a machine which has been adopted in Paris, indicating the number of passengers who enter or leave the vehicle, thus checking all attempts at dishonesty, and guaranteeing to the proprietors the value of each journey, a *desideratum* much to be desired in New York city, where as business is now conducted, the owners never expect to get their full fares. E. M. S.

EDITOR'S TABLE.

JANUARY - - - - - 1856.

THE NEW YEAR AND OUR ENTERPRISE.

Kind reader we now place into your hands the first No. of the second volume of the COACH-MAKERS' MONTHLY MAGAZINE for a careful perusal. The old year is about to be numbered with the past, a new one is drawing near, and how can we enter upon its manifold duties without pausing for a moment to give our mind to many interesting reflections connected with the past. The

relation which an editor bears to his readers is certainly of a peculiar nature; a kindly regard, a species of friendship must necessarily exist in the heart of a man towards those for whom his thoughts and his labors are daily employed. His task, though toilsome, sometimes seems not only agreeable, but light even to himself; especially is this the case when at the end of the year he is permitted to look back over his works and have the assurance that his labors were properly appreciated, and that some good was accomplished thereby; and we have now the good fortune to experience this editorial happiness. From every corner of the Union, from every nook in Canada, and from many parts of Europe, there is a voice coming forth to greet us with a universal approval of our enterprise, and acknowledging its influence to be tending to the inspiration of new life, and to hasten the *onward* march of that locomotive department in the mechanic arts, to which it is devoted.

Many of our brother craftsmen whose faces we have never seen, have kindly co-operated with us in our labors, (the object of which has, and ever shall be, the diffusion of practical knowledge in the art of manufacturing the various denominations of pleasure carriages, the elevation of our fraternity as a body of mechanics, and the good of its members); and not a few have thus formed habits which may be lasting, and the source of much benefit to themselves and others.

When we commenced this enterprise, it was, we confess, with considerable anxiety and misgiving, but seeing the constant need and the *importance* of its establishment, we wearied not in well doing, but continued it, not only with the hope of increasing patronage, but with a *full* determination to impart to the Magazine a permanency in the literary world that should be lasting—not to appear like a delicate summer rose, exhibiting its beauty for an hour, then begin to fade leaf by leaf and suddenly disappear in oblivion—but to take strong root in proper soil and grow up a prominent tree in the forest of mechanical literature, to accumulate strength and beauty with its growth, and in every way prove itself worthy of the name by which it is known.

But how have we succeeded in the undertaking? To this we are happy in being able to answer that the *Coach Makers' Magazine* has now reached a circulation in every State of the Union, throughout the British provinces, and the principal European cities, which has never been equalled by any periodical devoted to any one branch of the mechanical arts published in the world. It has achieved a triumph of which we have every reason to be proud, and with which we might already be content, if ever any being was content with good fortune in possession while more was in prospect; but no: we mean to accomplish still more. With this number we cross over into the great metropolis of England, and there establish it also. No, we repeat, we cannot rest content within a limited border of action while we behold on the other side of the Atlantic over twenty-nine thousand coach-makers who are destitute of a monthly Magazine; then what may we not promise in future for the improvement of the Magazine with the aid of such a host of correspondents as it now has and will continue to have.

The future is full of interest and promise to the members of our craft, and they who are now moving slowly along must quicken their pace if they hope to keep up with the growing intelligence of the passing age. *Progression* is visible in all the movements and actions of our fraternity, and in view of the opportunity now offered to its members for acquiring knowledge, there can be no apology from the individual found loitering along the public highway of life. The time has arrived when men of all grades and professions *must*

investigate and act for themselves upon all matters touching the interest of their country or their respective occupations. We desire to be progressive, not to be left behind in the march of improvement, but to press forward with accelerated speed. *Onward* is the leading motto which is now painted in glowing characters over the door way of every carriage factory both here and throughout Europe. Then what man among us has the impudence to raise up and bid the rushing progress of the coach be still, or what man has the littleness of soul in this age of the world to look back with a sigh to the days of wheel-barrows, gigs, and clumsy chariots. There might possibly be a lone individual of this kind pointed out here and there in the fields of our fraternity, but they are few and far between, and even these must shortly fall in with the passing crowd or have their names erased from the list of intelligent mechanics.

Sixty years ago (when there was but one way of working, but two or three different models of carriages to build from, and but one style of finish,) the coach-maker might with some degree of propriety say to his brother: "Thou canst teach me nothing; I have acquired all knowledge, understand every rule of working and am perfectly familiar with every style and pattern known to the craft." He was like the noble horse working to a bark-mill; his circle of action was contracted, the chain of limitation held him firmly to a fixed centre which permitted him to make a circular path around it, but beyond which he had not the means of getting. Therefore he moves on round and round in his smoothly beaten track from morning till night. Is it strange that the horse may become perfect in this work; so perfect, indeed, that it is impossible to teach him any new thing respecting it? by no means; for his sphere of action is so extremely limited that he can become familiar with all its operations in a very short time. So with our brother craftsmen sixty years ago. They too were held to a fixed centre and their operations limited to a very small circle out of which they could see nothing that was an inducement for them to vary from the smooth trodden path in which they were working. And how quick the mad dog cry would be raised, should at any time a brother be so unfortunate as to break over the line so long laid down as the mark "so far shalt thou go and no farther." Is there anything so incomprehensibly strange under such circumstances, that the brother chip of 1795 should be enabled to claim perfection? Surely not; for there was *little* extremely little embraced in the constitution of perfection at that age of coach-making. But behold what a revolution the period of sixty years has effected in this department of mechanism; its extent of practical knowledge is without bounds, and its variety of patterns and fashions are almost without number. Hence we can easily perceive the importance of the establishment of a medium through which the members of this department can communicate to each other the various plans, thoughts, and suggestions they may desire, to the profit and good of all. This was the object for which we labored when we introduced the Coach-Makers' Magazine, and thus far we have succeeded even beyond our most sanguine expectations. We have now *established* a permanent periodical, devoted exclusively to the craft, and to which we mean to give in the future the utmost of our ability in rendering it worthy of a universal patronage in every country where we may see proper to introduce it.

Permit us again to wish you all a happy New-Year, sincerely hoping it may attend you with every comfort to render life a blessing. We remain your happy and most obedient servant.

THE EDITOR.

Contributors to this Number.

"A Coach Maker's Visit to the Crystal Palace," by	- - - E. M. STRATTON, of N. Y.
"On Wheels," by	- - - S. E. TODD, " "
"London Omnibusses," by	- - - E. M. STRATTON, " "
"The Magazine—Press On," by	R. W. GRIFFIN, " Pa.
"How the Everetts obtained a Patent," by	- - - G. L. HAUSSKNECHT, of Ct.
"Sprout's Combined Spring and Coupling," by	- - - S. R. LIPPENCOTT, of Ia.
"Spanish Coach," by	- - - ABRA'M TERRILL, of Ohio.
"Saladee's Skeleton Phaeton, Sprout's Springs, by	- - - THE EDITOR.
"Sliding Seat Phaetons, two Views," by	- - - JOHN E. MANLEY, of Ct.
"Ramblings—No. 6," by	- - - ABRA'M TERRILL, of Ohio.

ANSWER TO CORRESPONDENTS.

R. H. T., of N. Y.—Your article and drawings for the plan of a Carriage Factory is received. We much admire the design, and if you will take the pains to reduce the sketch so that one of our pages will admit of its insertion, we will cheerfully engrave it, and illustrate it in our next. Should you think to do so, we would suggest that you put the platform at the back of the building in place of the front. Your idea of having it in front for the purpose of attracting the attention of the passers by, to the work which is constantly standing upon it &c., may be all well enough, but it certainly does disfigure the front view of your plan very much.

A. C. M., of N. Y.—That *extension* coupling you refer to we have never seen, consequently cannot inform you as to its utility. The first indication we had of the existence of such a patent, was by letter from the patentee, who says that it is far superior to that of any other coupling now in the field; but that don't make it so. We are promised a model of this improvement, on the receipt of which we will endeavor to acquaint our readers with its mode of construction and operation. The patent, we believe, was granted in Oct. last.

W. W., of N. Y.—The meagre description of your improvement in carriage tops does not convey a correct idea of its operation. If you will send us a model or a correct drawing, we will know better how to understand you.

C. A. & Co., of Ia.—You are mistaken about us having stated that we were using a buggy with Dr. McLelland's patent Springs, as illustrated in the June No. of the Magazine, and we think you will fail to find such a statement anywhere in the Magazine. But it is nevertheless a good thing, so far as we have received any reports from those who are using them. A letter addressed to the Dr. at Lafayette, Ia., would receive prompt attention.

S. T. of Ohio.—Messrs. Smith & McNaught of Brantford, C. W., will answer you more satisfactorily than we can.

S. V. K., of Mass.—Your plan for a wheel with ten long spokes and twenty short braces might, as you say, render it very strong, but we can't get rid of the conviction that its complication and expense of construction will make it any thing but desirable.

L. H. & Bro., of N. Y.—The plan that you propose for a shifting top to light buggies we consider an excellent one, and it is our opinion that you will be fully justified in procuring a patent; and should it operate when practically tested as perfectly as the model Mr. Harving exhibited in our sanctum, it will be an improvement that cannot but meet the approbation of every coach-maker in this country. We are not quite sure, however, that the lever by which you raise and throw the top back, is any improvement on the one now used by a very few manufacturers.

C. W. N. & Co., of Ohio.—The best way for you to ascertain whether your proposed improvement in a coupling to turn short, will work properly will be to make a small model and experiment with it. If you would have sent a drawing illustrating your plan, we might have been able to give you our opinion respecting it. As it is, we do not clearly understand your explanation.

A. B. S., of Tenn.—Your drawing of an open buggy is very good for the first effort, but it is not sufficiently correct to the scale nor the rule of proportion to justify its insertion. Try again, and we are sure you will produce something about the thing.

M. E. D., of Mich.—In looking over the editor's drawer we find a letter from you dated Sep. 16, 1855, containing a drawing of an eagle neck Phaeton. With a little modifying it can be made something new and fine. If possible it shall appear in our next.

S. G., of New Haven, Conn.—Your sketches of two Rockaways are at hand. You are what we term a master draftsman, but the designs of those carriages stand rather a little too far in the rear of the present style and fashion of this denomination of work. Will you have the kindness to favor us again with some drawings of a different kind.

P. S. S., of Ohio.—We have not as yet had the pleasure of testing those patent wheels illustrated in our last. However, we are having a fine carriage built at Cleveland, to which those wheels will be applied. From all that we can now see, we must confess our faith is very strong in their behalf, but ere long we shall know something about their *practical* worth.

MUSIC BY STEAM AGAIN.

Reader, it is a fact, that a Yankee has succeeded in harnessing steam to a musical instrument in such a way as to ensure perfect execution. The name of the inventor is Joshua C. Stoddard, of Worcester, Mass. The following description will give some idea of the possibilities of the invention:

"The instrument is of simple construction, and when once thoroughly put together, will seldom if ever get out of repair. It consists of a horizontal steam chest or cylinder, some six feet in length, and from four to six in diameter, which is fed with steam from the

boiler in the establishment where it is located. Upon the top of this cylinder is a series of valve chambers placed at equal distance from each other into which the steam was admitted without obstruction. Each valve contains a double mechanic valve with no packing, yet it fits so closely upon its seat as to allow no steam to escape. To each of these valves is connected a very small piston rod, or stem, which passes through the chamber and is operated on by machinery without. Were it not for this stem the valve would be simply a double balance valve, and would remain stationary wherever placed, the pressure of steam being equal on all sides; but a part of one end of the valve being carried outside of the chamber, gives it the self-closing power, which is then the nicest part of the whole invention, and perhaps the most patentable feature. With a slight pressure against these rods the valve is opened, and when the valve is removed, it closes as quick as steam can act, which is not much behind electricity.

Directly over each of these valves is placed a common alarm whistle, constructed similar to those used upon locomotives, except that it admits of being lowered, to flatten or sharpen the tone. These whistles are made of different sizes, so as to produce the required tone corresponding with each note, etc.

This completes the machine, with the exception of a cylinder similar to those used in a common hand organ or a music box, containing cogs, which, when properly arranged, will, when turned by the hand or otherwise, operate on the valves in such a manner as to play any tune desired, by simply changing the position of the cogs, which are intended to be moveable.

One of these instruments can be heard from ten to twenty-five miles on the water, and every note will be perfect and full.

We heard the inventor play 'Rosalie' on it, and it looked like 'getting off tall notes' mechanically. This invention is so completely under the control of the operator, that, were it arranged with a key-board similar to a piano, it would obey the slightest touch, and a child could play slow or quick tunes, every note of which might be heard several miles.

It is the design of the inventor to place these instruments upon locomotives and steamboats.—It would appear rather novel to John Bull to hear 'Yankee Doodle' from one of our Ocean steamers as she was about to enter a British port, (say twenty miles,) and it would remind a Yankee of his jack-knife to hear 'Sweet Home' from the same vessel on its return to New York or Boston. This invention, if it meets the expectations of most who have seen it, will alter the tone of public demonstration on important occasions very essentially."

THE PRESENT NUMBER.

We cannot help expressing a certain degree of pride in the improved appearance of the Magazine in this new year dress, and we are inclined to believe that our readers after inspecting it will find ample reason to share with us. Turn, if you please, to the drawing department, and notice the improvement in the engravings, their arrangement, and also that of the printing. Then turn over to the first page of the reading department and glance at that magnificently engraved heading; notice particularly how appropriate is the design of the drawing; lay over another leaf and see what an improvement is exhibited by that beautiful light border and those wide roomy columns; and last, though not least, take a passing notice of the book all through from first to last, and if you do not credit us with having greatly improved the appearance of the Magazine, we shall be very much mistaken, that's all.

A SONG OF OHIO.

ALICE CAREY, that well known American authoress, writes of the Buckeye State as follows :

'Tis a land of brightest splendor,
Sing we O, Ohio!
And I'm sure the angels tend her
If they ever come below.

'Tis a land of milk and honey
A land of corn and fruit,—
Of meat, and wine, and money,
And of honest folks to boot.

If you go there they will take you
By the hand as you will see,
And hospitably make you
Taste their Johnnycakes and tea,

With her forests waving greenly,
And her sunny streams aflow,
In her beauty she is queenly—
Sing we O, Ohio!

If her homes are not like rabbins',
With their tinsel hung about,
'Tis the merit of her cabins
That they have the "latch-string out."

She has schools for all her people—
Cathedrals, books and law,
And, I guess, as high a steeple,
As, perhaps, you ever saw.

She has great men that will get her
Praises everywhere she's known,
And no women can be better—
Heaven bless them—than her own.

All her farmer folks are thrifty,
All her merchants see good times,
So that scarce a man in fifty
Hasn't got some extra "dimes."

If she needed any warder,
One would spring from every hearth;
For I'm sure the angels guard her,
If they come about the earth.

I have seen the Yankees whittle,
Seen the planters down below,
Nor have bated jot or tittle
Singing O, Ohio!

ANOTHER SHAFT FASTENER IN THE FIELD.

By the following notice which we clip from the lists of patents granted the week ending Nov. 13, 1855, it will be seen that our old friend Mr. Chapman, is having company in the shaft fastening enterprise:

SECURING SHAFTS TO AXLES.—Alfred E. Smith, of Bronxville, N. Y.: I am aware that blocks of India rubber have been interposed between the ends of carriage shafts, or thills, and the metal clips attached to the axle to make pressure against the shafts or thills, with the view to prevent wear, rattling, and accident; but as each block of India rubber is hollowed out in the front face, to fit the rounded end of the shaft, or thill, it will seriously impede the up-and-down motion of the horse, and the passage of the carriage over irregularities. I do not, therefore, mean to be understood as making claim to the use of springs or elastic substances at the connection of the shafts, or thill, with the axle, to prevent wear, rattling, noise, and accident.

I claim connecting the stems of the shafts, or thills, with the eye-staples, by means of a spring or springs, acting laterally against the faces of the eye-staples, substantially as, and for the purpose specified.

STILL ANOTHER.

A patent was also granted to Mr. Thos. Chope, of Detroit, Mich., for an improvement in attaching the shafts to the axles, which we copy from the *Scientific American* :

ATTACHING SHAFTS TO AXLES—Thos. Chope, of Detroit, Mich.: I claim attaching the shafts B B, to the front axle A by means of the curved plates C C, attached to the back ends of the shafts and the cylinder, c, secured in the ends of the projections, D, which are attached to the front axle, the cylinder c, having notches, e, made in their peripheries, to receive the lips, a, on the ends of the plates, C, substantially as shown and described.

[The ordinary mode of attaching the front wheels of vehicles to the body part, by a king-bolt, renders the axletree weak in its centre, owing to the hole required for the bolt. One portion of the improvements patented above consists in dispensing with the king-bolt, and making the attachment without boring the axle. This is done by means of two T-shaped plates, which are attached one to the reach and one to the body; these plates are slotted and connected through the slots by means of bolts, so that not only may a vehicle thus provided turn as easily as by the common method, but it will turn in a circle of much smaller dimensions. There are other advantages, but those we have named are sufficient to indicate the general excellence of the invention.]

A CARD.

The undersigned offer for sale their large and commodious carriage factory, situated in Xenia, Greene county, Ohio, together with a large and well assorted stock of seasoned lumber, consisting of Hickory, Ash, Sugartree, and Poplar. The main building is a new three story brick, with large attic for the storage of wood works, bent stuff and the like. This building is 36 by 70 feet, to which is connected a good frame two stories high, 25 feet square. The lot front 50 feet and 160 deep. The main building has a roomy platform to each story, which is furnished with a hoisting apparatus, trap doors, &c.

Any person with a reasonable capital wishing the best location in Ohio, will find it materially to his advantage to address the proprietors by mail or otherwise immediately.

MOREHOUSE & DAVIS, Xenia, Ohio.

Nov. 30, 1855.

[We consider the above the most promising opening for a coach factory that could command a capital of \$10,000, in the western country. Being personally acquainted with the location and surrounding country, we feel no hesitation in highly recommending it to any enterprising man or company of men who are desirous of going into the manufacturing of carriages west.

Xenia is a large and rapidly increasing place, and the seat of one of the wealthiest counties in the State; no carriage factory of any extent being nearer than sixty miles, which is Columbus. The want of a proper capital to conduct their business as it should be, is the only motive which prompts these gentlemen to offer their factory for sale.

Any person desirous of such a location, will do well to give this offer their attention very soon.—Ed.]

BACK NUMBERS AGAIN.

In mailing the residue of Back No.'s to our subscribers, we find that some mistakes were made in sending the right No.'s. To some we sent several No.'s that they had already received, and to some few, we have sent May and June, for January and March. All those who have received extra No.'s will confer a great favor upon us by returning them, so that we can send them where they belong. Having several times been compelled to enlarge our edition, and reprint, so confused our subscription list, that we could not help making some mistakes after the fashion above described. No such trouble this year.

THE SQUARE RULE.

In the next No. of the Magazine will be commenced a series of articles on the Square Rule for the construction of carriages in all their various parts, by our general agent. This Rule is similar to the French Rule, but more simple, and universal in its application.

THE FRENCH EXHIBITION.

One of our French correspondents writing from Paris, states that a petition is on foot soliciting the re-opening of the grand Industrial Exhibition in that city next spring. It is stated that about one half of the exhibitors have signed the request. As yet neither the Company nor the government have taken action in regard to the matter. Another petition for the continuance of the present Exhibition beyond the day of closing, Nov. 1, had but very few signers.—*Scientific American*.

TERRILL GOING EAST.

Mr. Abr'm Terrill will visit many of his old friends throughout New England, in January. He will solicit subscribers to the Magazine in the following cities, and return west by the 20th of March, viz: Pittsburg, Wheeling, Baltimore, Washington, Wilmington, Philadelphia, Rahway, Newark, Bridgeport, New Haven, Hartford, Springfield, Belchertown, Boston, New Bedford, Amesbury, and Portland.

OUR PORTRAIT.

In the last No. of the Magazine it was promised that a portrait of the Editor should accompany this No. We are sorry to state that the failure in obtaining a correct likeness is the cause of its non appearance. However, we shall try again, and if success attends the effort it shall appear in the present volume.

H. GALBRAITH & CO.,
Silver, Brass & Electro Platers,
And Manufacturers of
COACH & SADDLERY TRIMMINGS,
Cook's Improved Carriage Knobs,
AND FINISHING SCREWS,

Improved Solid Head Silver and Japaned Lining and Band Nails,
SILVER AND LEAD MOULDING,
SPRING CURTAIN BARRELS,

Nos. 2 and 3 Japaned and Silver Cap'd Carriage Knobs, Spring Catches, Door Aandles, inside do., Scroll Foot Board Handles, Calash Trimmings, Card and Name Plates, Lining Band and Saddle Nails, with annealed points—Top Props and Nuts, Joints, Rivets, Hub Bands, Shaft Tips, Pole Hooks and Crabs, Self-adjusting Saddle Trees, Hames, &c., &c.

FRANKLIN, NEAR CHAPEL ST., NEW HAVEN, CONN.
July 1855.

RAHWAY SPRING WORKS,
RAHWAY, N. J.,

Manufacture every variety of Car, Carriage, Buggy, Sulky, and Seat Springs, from the best quality of Steel.
A trial of our Work is solicited.
E. HAYDOCK, Proprietor,
J. GATCHELL, Agent.
July 1855.

THEODORE ROYER. JOSEPH SIMONTON. JOHN YOUNG.

GREAT WESTERN
WHEEL, SPOKE, HUB AND FELLOE
MANUFACTORY.
ROYER, SIMONTON & CO.,

Manufacture and keep always on hand, a large supply of
WHEELS, SPOKES, HUBS, FELLOES, SHAFTS, BOWS, &C.,
Factory No. 375, S. S. of Third Street, below Smith St.
CINCINNATI, OHIO.

Mr. Simonton, being a practical Carriage-Maker, our customers may depend upon having their orders filled correctly.

SPROUT'S COMBINED CARRIAGE SPRING.

PERCH AND BRACES!

THREE COMBINED.

New arrangement.

The demand for our Combined Spring and Braces has so increased within the last month in the western and southern States, that we find it necessary to establish an agency in the west through which the coach-makers in that region of country can be promptly supplied.

COLUMBUS, Ohio, is where we have located the agency above referred to, and where all orders from the following territories will meet with prompt attention, by being addressed to the *Office of the Coach-Makers' Magazine*, (Mr. Saladee having consented to attend to business for us until further arrangements can be made,) and to which address all orders from the States below mentioned must be directed, viz; all that portion of Pennsylvania west of the Alleghany Mountains, Virginia, Ohio, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Missouri, Iowa, Milwaukee City, Wisconsin; Chicago, Illinois. The rest of the territory in the two latter States as well as Indiana and Kentucky, were sold before we commenced manufacturing; however, we are trying to make arrangements that will enable us to furnish our springs to the latter also. Mr. Abra'm Terrill, (Mr. Saladee's general agent,) is about to make a tour through the East to collect subscribers to the Magazine; the said gentleman is authorized to receive orders for our springs, as he sojourns through the different States.

Orders from all other territories not above mentioned, will be directed to the proprietors,

SPROUT, BURROWS & CO.

Hughesville, Lycoming Co., Pennsylvania.

October, 1855.

P. S., Since writing the above, we have completed an arrangement with Mr. Saladee by which we have given him the agency and exclusive right for the sale of our springs in the above mentioned territory, and all orders therefrom must be forwarded to his address at Columbus Ohio.

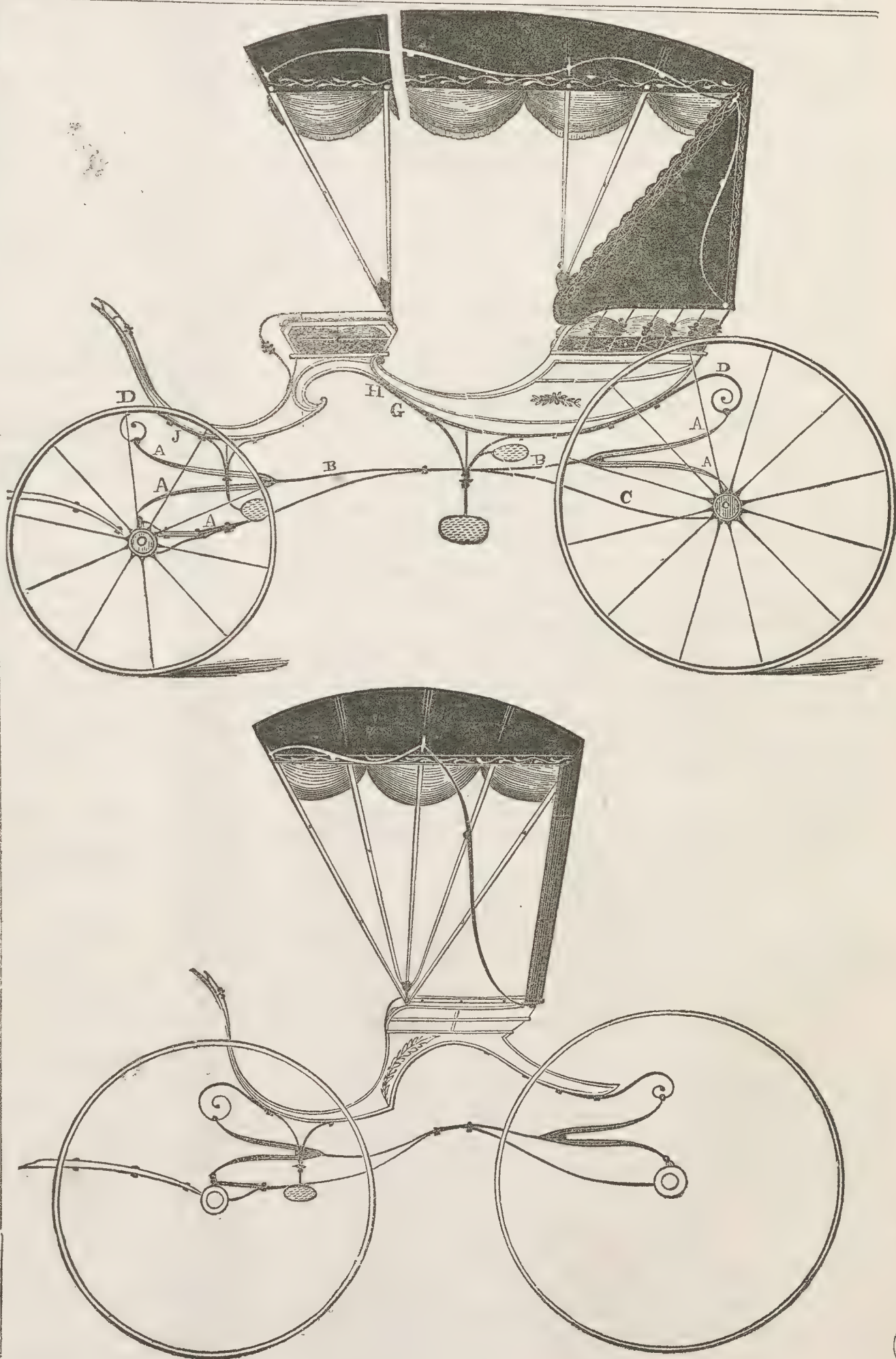




PLATE III.

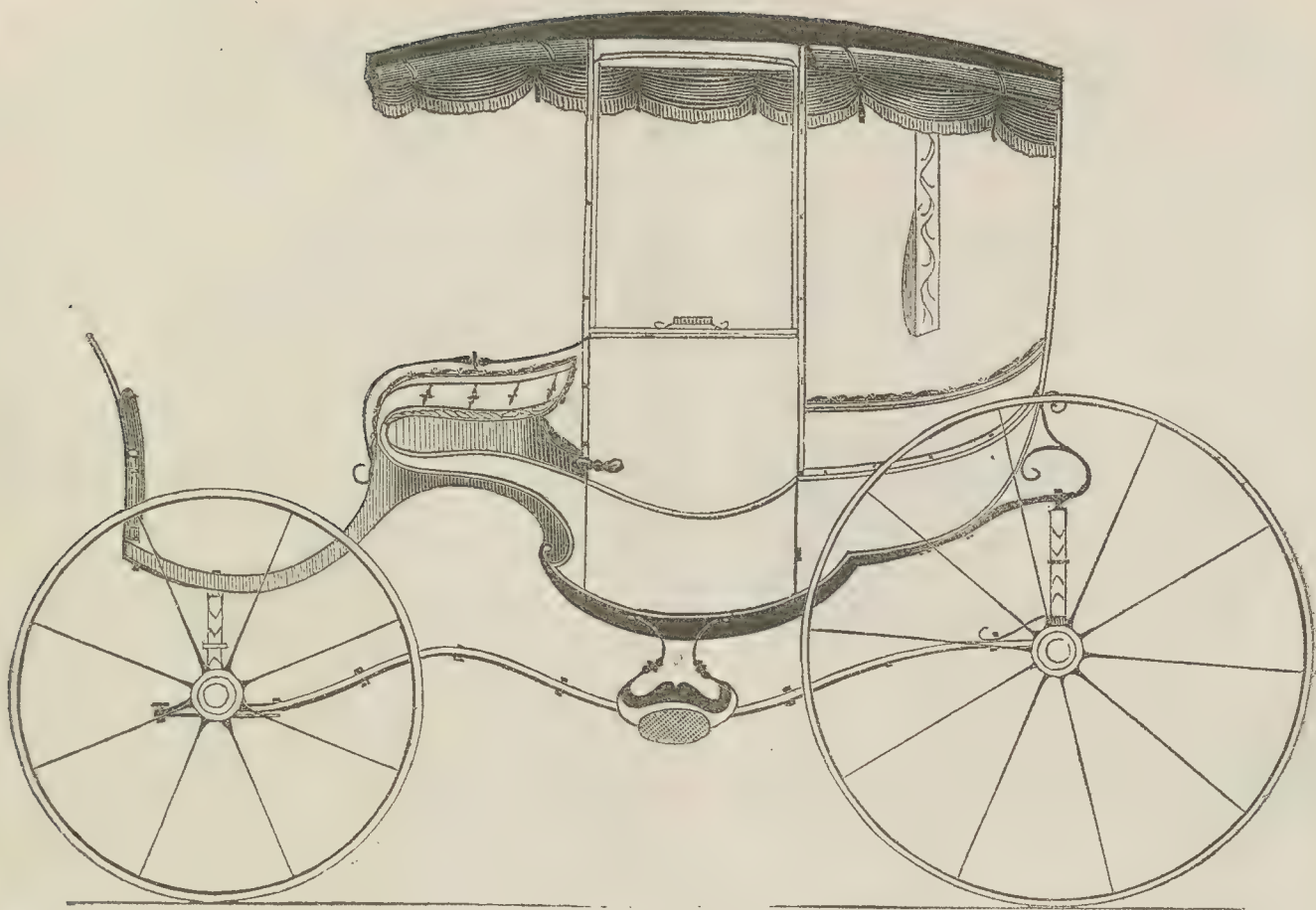


Fig. 6—Rockaway with Spanish Top.

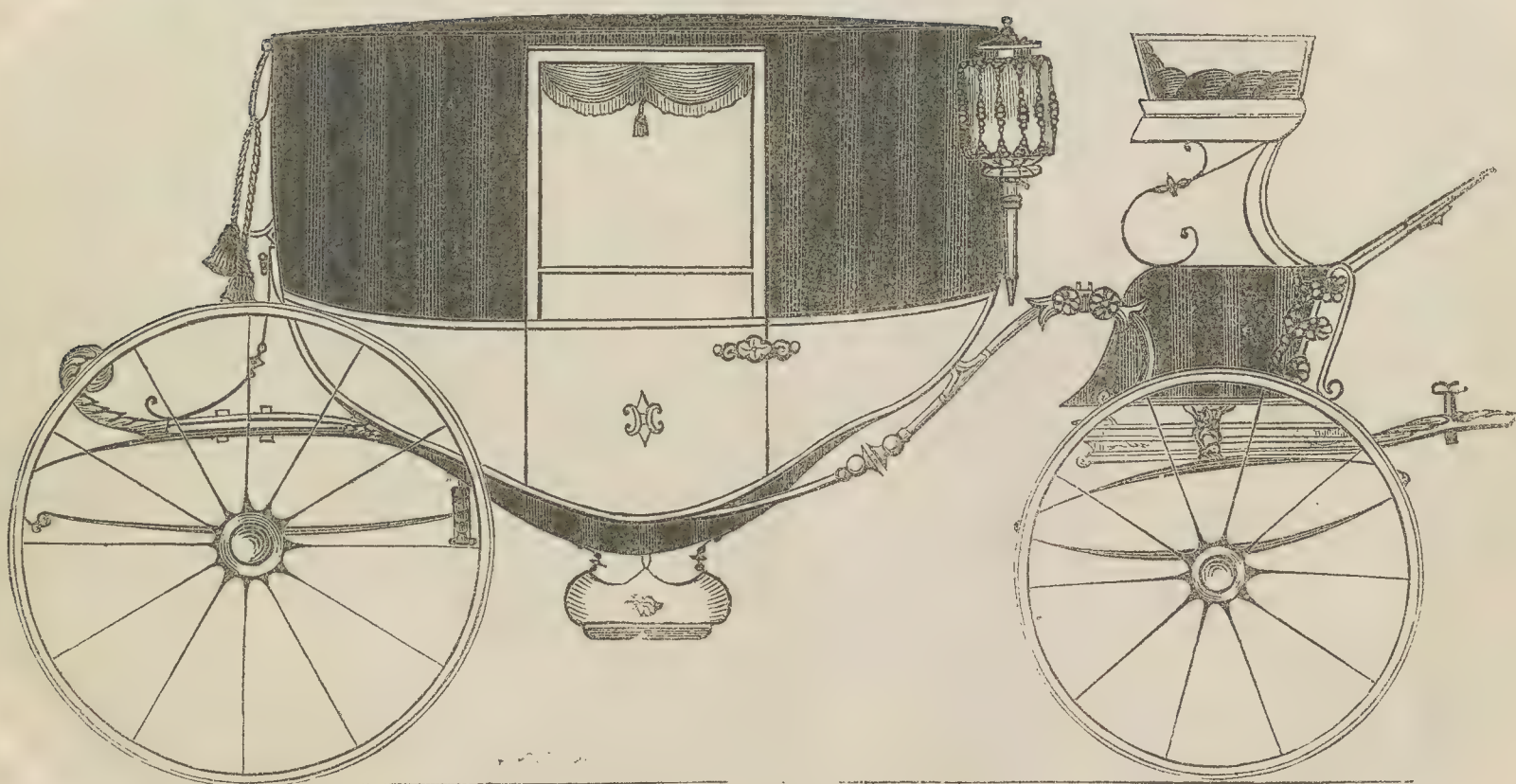


Fig. 7—Crane Neck Coach.

PLATE IV.

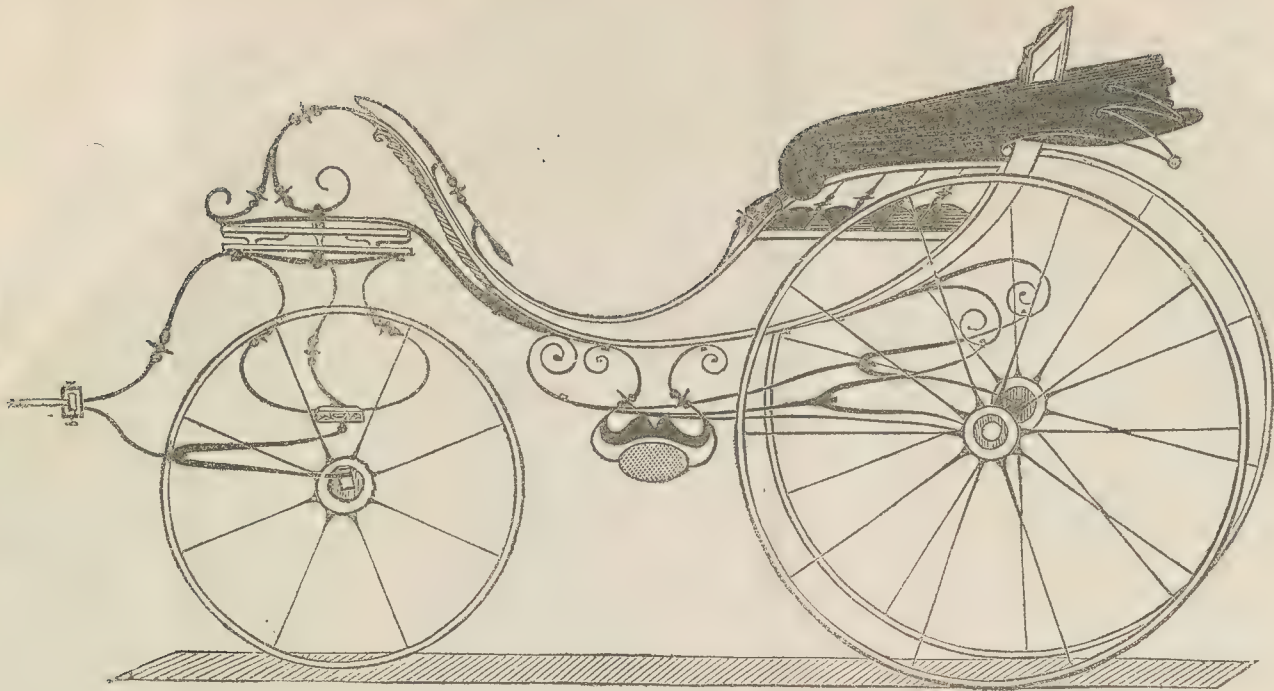


Fig. 8.—Saladee's Three Wheeled Equirotal Phaeton.

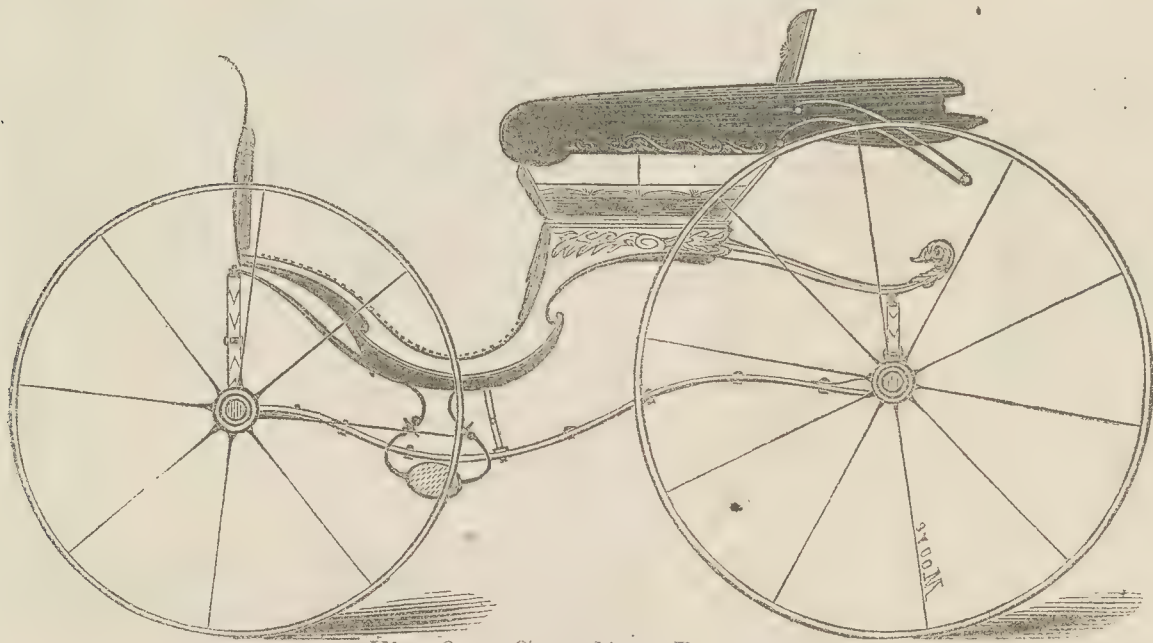


Fig. 9.—Canadian Buggy.

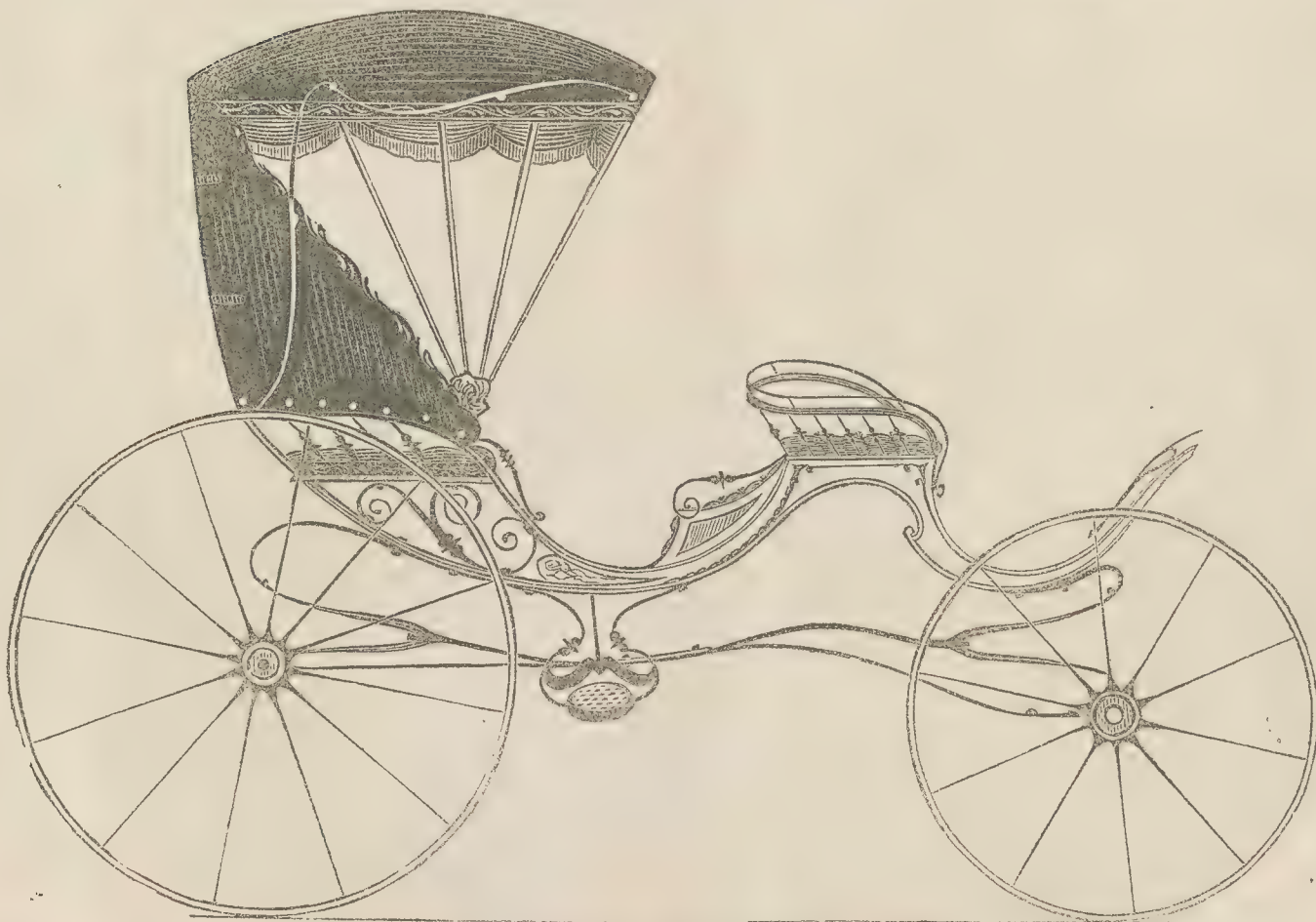
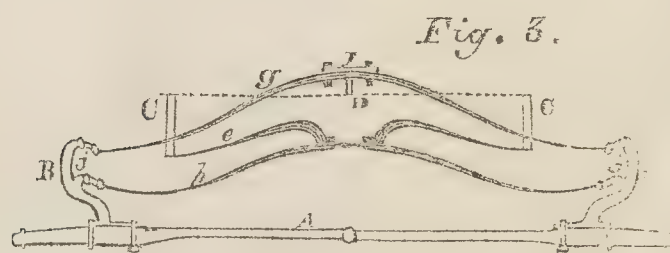
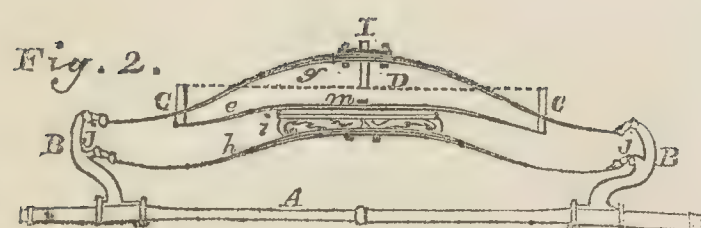


Fig. 10.—Saladee's Skeleton City Phaeton.



FREEMAN'S PATENT BUGGY.



PLATE VI.

SHELLEY'S PATENT

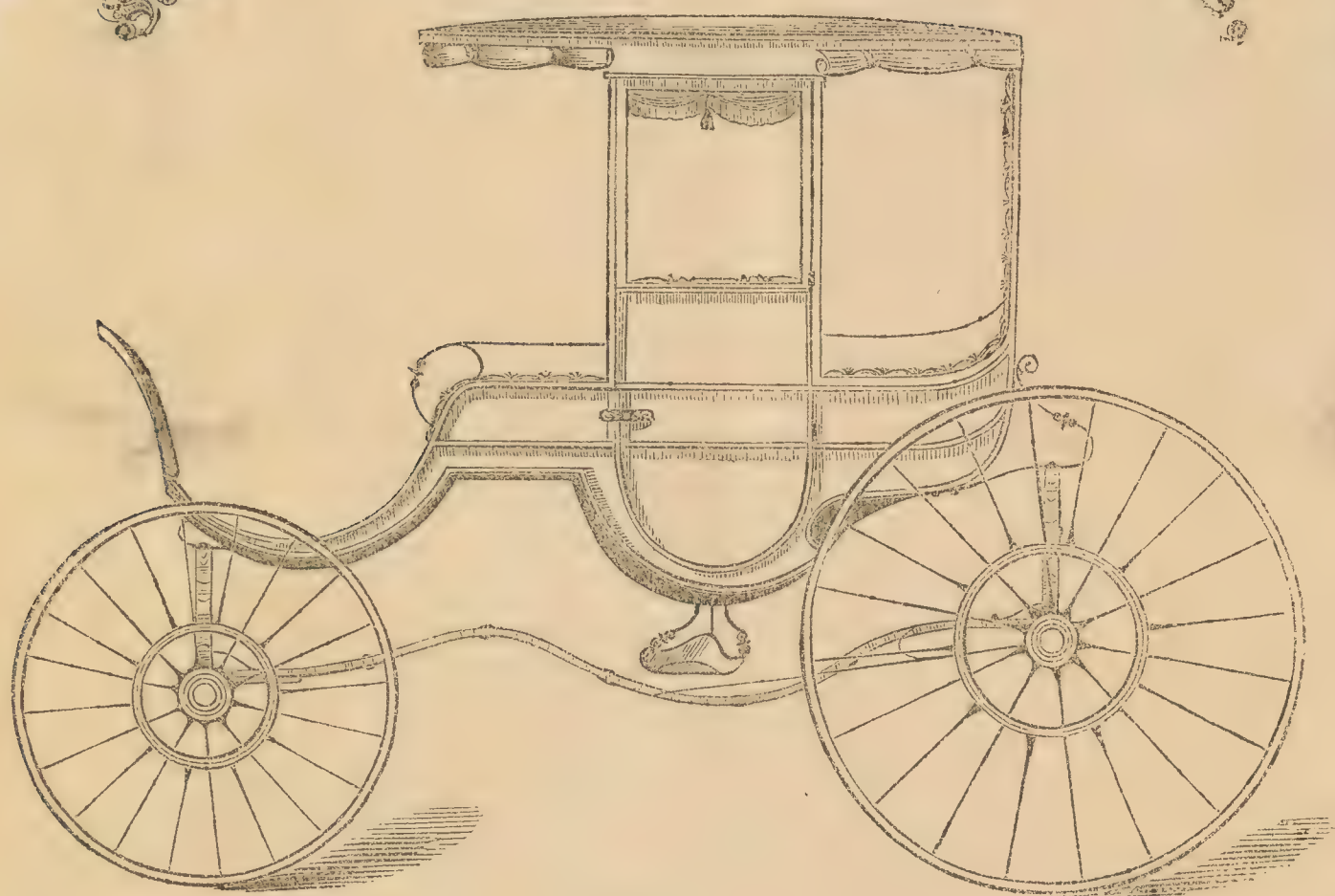


Fig. 1.

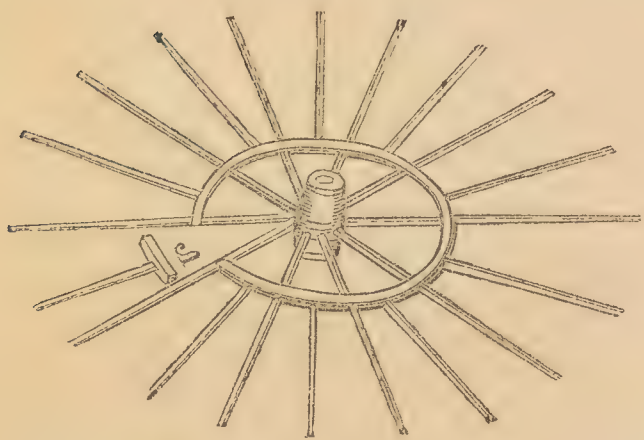


Fig. 2.

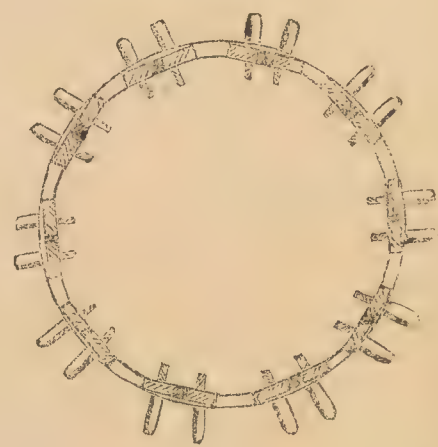


Fig. 3.

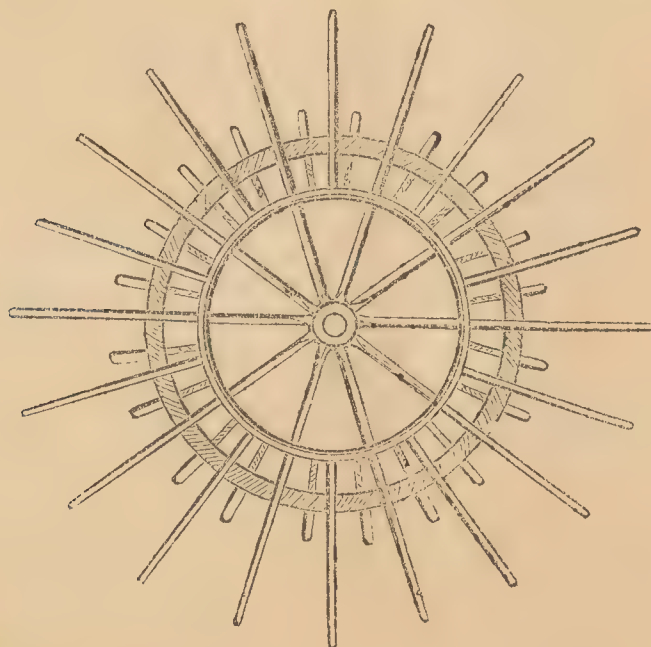


Fig. 4.

SHELLEY'S PATENT WHEEL.



Volume 2.--Number 2.]

February, 1856.

[E. W. Saladee, Editor and Proprietor.

TERMS:

Single subscription	one year	- - - - -	\$3 00
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All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Office of the Coach Makers' Magazine, New York, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for N. York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

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Fashions for February.

FIG. 6.—ROCKAWAY WITH SPANISH TOP.

This new style of Rockaway is another design from Mr. Terrill. The arrangement of the front quarter and seat is something certainly very original, and if properly constructed, will have a very beautiful appearance. The body is intended to be pannel work, but the front quarter and side to the seat can be made from one solid piece and carried and moulded off as represented in the drawing. The back to the front seat is either a stationary one between the two front pillars, or what is commonly called, the railroad backs.

This carriage has the round or Spanish top, which may, in the estimation of some, add much to its general appearance.—[Ed.]

For Saladee's Magazine.

FIG. 7.—CRANE NECK COACH.

The Coach which we present to our numerous and kind readers

this month, in our fashion plate, is such as we think will receive the approbation of every gentleman of refinement. It is in the best sense of the word a Crane-neck Close Coach. You will of course perceive that our crane-neck has more ornamental labor bestowed upon it than has yet, as a general thing, been done in this country, although in Europe much taste and variety is exhibited in this part of the coach. The elevated seat gives our draft a high and graceful appearance, and the rumble under that portion of the vehicle imparts to it an aristocratic look, in striking contrast with the common hackney coaches seen every day in our large cities. We will not run the risk of insulting our intelligent friends by going into more minute details as respects the manner of painting, trimming, &c., since we are well persuaded that every practical coach builder only requires a beautiful and correctly drawn side draft in order to produce a beautiful and tasteful coach. E. M. S.

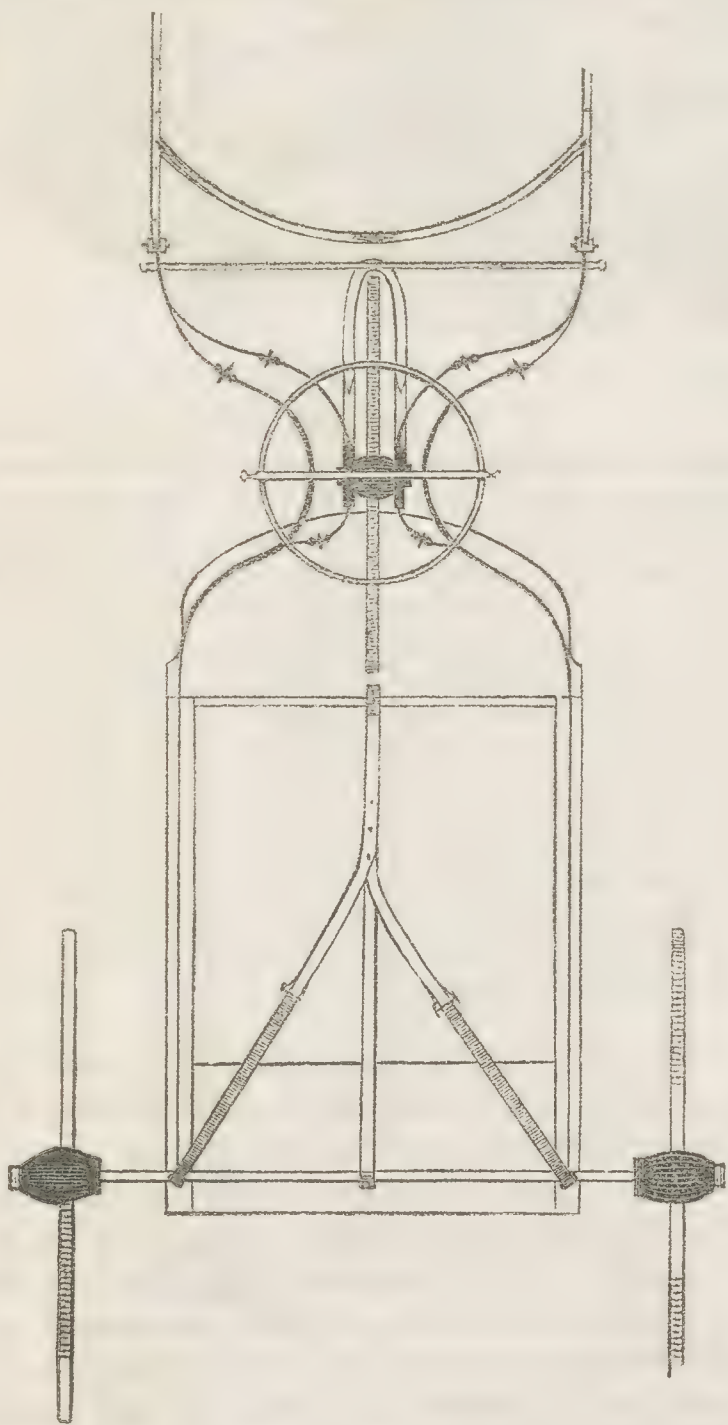
FIG. 8.—SALADEE'S THREE WHEELED EQUIROTAL PHÆTON.

Nothing would be better calculated to excite the wonder of our carriage riding people, than that of seeing a carriage passing along the street on *three wheels*. Some few months ago the citizens of the Capitol purchased a steam fire engine, which was constructed upon three wheels, and while inspecting its operations we were led to inquire whether or not a carriage could be constructed on *three wheels* with like safety and advantage. We accordingly set about devising some plan by which the application of three wheels to a pleasure carriage might be rendered practicable, and the design here illustrated has been the result. But now the question very naturally presents itself, and demands, what practical advantage the application of but three wheels can be to a vehicle for any purpose. In answer to this we would remark, that there are three very desirable advantages attained in the application of three wheels to a carriage like the one here illustrated, and on the other hand there is one grand objection.

But first, its advantages. The carriage resting on but three bearers at once, relieves it from that twist and strain on the body so universal in four wheeled carriages. Suppose, for example, our equirotal Phæton was hung upon four wheels, and one of the front ones was to drop suddenly into a rut, and the opposite wheel

standing upon a smooth base. It will be seen that the whole carriage is in a strained position; but on the other hand, let us suppose our three wheeled carriage to be on the road under like circumstances, and we shall find that no matter which one of the three wheels falls into a rut or is abruptly raised upon any obstacle, there is no strain whatever upon the body or any part of the carriage, for the reason that it rests upon but three bearers. We cannot do better than to liken it unto a three legged stool; no matter whether one foot is shorter, or the plane on which it rests is uneven; it nevertheless rests equally upon each bearer, and consequently no strain or twist is visible.

In the second place, the wheel being immediately in front of the body is entirely out of the way in getting in or alighting from the vehicle; and in the third place, we gain the very desirable object of turning short, as much so as with a sulky.



The above illustration will convey a correct idea as to the manner in which this body is connected to the front wheel, &c. The objection referred to is, that in driving but one horse, the wheel is immediately behind him, so that he must be hitched a sufficient distance from it to avoid his coming in contact while traveling, but in driving two horses, they can be brought as close to the vehicle as may be desired. After all this is really no objection, for suppose this same carriage was suspended upon four wheels and two horses were to be driven before it, the same objection presents itself, viz: that each front wheel is immediately in the rear of each horse, and they must be attached to the carriage the required distance from the wheels, to avoid the difficulty before mentioned.

But the most serious objection that we can perceive in this arrangement, is, that it is limited in its application to a style of carriage peculiar in itself, with a body of such a pattern that it shall have but one seat, and that so arranged that it comes as nearly over the back axle as possible, otherwise its liability to upset would be materially increased. But, notwithstanding it will make a carriage thus limited to one style peculiar in itself, and no further, it is nevertheless a desirable one for the good points it possesses, and is one we think, that will be much sought after by a certain class of individuals, viz: physicians, and others wishing a light carriage with but one seat for two persons.

More about this hereafter, as we are now having one built to our order.

FIG. 9.—CANADA BUGGY.

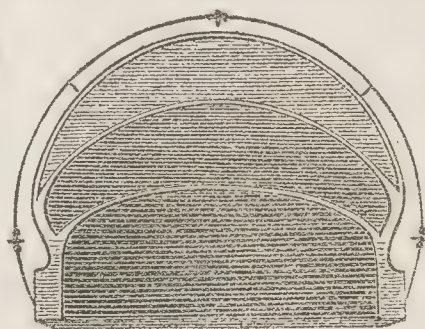
The design illustrated by this figure, was sent us by Mr. Geo. J. Moore, of London, C. W., whom our readers will remember we spoke of in the Nov. No. of the Magazine. His drawing does not exhibit anything really new, yet it is a pattern that will meet the approbation of many who are purchasing something on the fancy order.

FIG. 10.—SALADEE'S SKELETON CITY PHAETON.

The reader will readily perceive by taking a glance at our skeleton Phaeton, illustrated in the last No., that the design of the one here represented, was taken therefrom, as the back part of the carriage including seat and top are precisely the same as fig. 1 in the Jan. No. And you will further observe, that by merely extending the body, so as to admit of a small seat in front for children, and a driver seat after the manner represented in our drawing, you obtain a style of six passenger carriage, which for originality, beauty of form, lightness, durability and convenience, stands unsurpassed. We cannot now imagine a greater display of grace and beauty, than to see this same carriage passing through Chestnut street or Broadway; the top thrown back, exposing to view the feminine passenger and her lord, their two rosy faced prattlers on the little seat before them, while the front seat is occupied by the reinsman, who is attired in full livery, drawing a steady line over a fine span of match horses, and the whole moving gaily along on its errand of pleasure. Hence it is peculiarly adapted to city purposes.

But in drawing this picture of finery and extravagance, we would not be understood as limiting the design of this carriage to the use of the upper tondom and the city alone; for it is equally applicable to the more ordinary class of work, and therefore is rendered desirable, either as an expensive and extremely fanciful city conveyance, or a neat, plain and unassuming family carriage.

The bottom in this body, (when made skeleton,) should not be permitted to extend farther back than is absolutely necessary for



the accommodation of foot room, and the cross bar at the back of the body where the loop leaves it, should be neatly carved. If it is to be solid side, the bottom and back is applied in the usual way.

The annexed figure is a front view of dash of this body.

For Saladee's Magazine.

FREEMAN'S PATENT BUGGY.

BURFORD, C. W., Dec. 26th, 1855.

MR. C. W. SALADEE—*Dear Sir:*—Wishing to illustrate my new patent carriage through the columns of your excellent Magazine, I take the liberty to forward you this communication, accompanied with the necessary drawing and this explanation.

First, I suspend two half springs above each other, supported by

COMMUNICATIONS.

For Saladee's Magazine.

AXLETREES.

For Axletrees and Bars, and Tongues and Bows,
Iron and Hickory—choicest wood that grows.

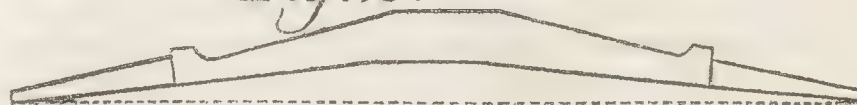
[EDWARDS.]

Fig. 1.



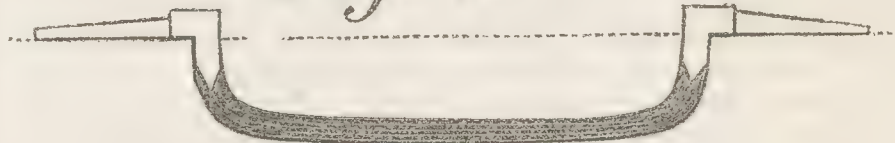
Straight or Truck Axle.

Fig. 2.



Arched or Gambrel Axle.

Fig. 3.



A common Carriage Axle, for Dishing Wheels.

jack irons, as will be seen by the drawings. By so doing, I use wood axletrees or wood and iron, or steel and wood or steel alone, as the job may require. Second, I use a centre reach and a draw brace from the centre of the front axle to the pole or shafts, as the case may require. Third, I place two spring bars upon the lower springs, together with a steel spring head block upon the front spring and fifth wheel or circle resting upon the head block and front spring bar, resting upon the circles and pivot, bolted to the front spring, passing directly through the centre of the circle and spring bar. By the aid of a nut I can bring the faces of the circles together, so as to give steadiness to the front position of the carriage. Fourth, I use three body loops, one fastened to each edge of the bottom of the body, attached to the ends of the spring bars, and a centre body loop passing directly under the centre of the body, bolted upon the back spring, secured to the top of the front spring by a pivot, the ends of which are raised about nine inches in a vertical line above the points of connection of the side body loops, which enables the spring and body loops to act as braces, thereby preventing the body from swaying, and fracturing the springs in case of a sudden or heavy lurch in any direction.

The following letters have reference to the drawing: A, axletrees; B, jack-irons; C, side body loops; D, centre body loops; E, Fig 1, coupling or reach; F, Fig. 1, draw brace; G, end of centre body loops; a, circle or fifth wheel; e, spring bar; g, the top spring; oh, the lower spring; i, head block; j, the shackles or loops that holds the springs; m, the stud that passes through the centre of the circle and spring bar, fastening to the head block and springs.

Yours, very respectfully,

DANIEL FREEMAN.

SHELLEY'S PATENT WHEEL.

The engravings on plate 6, represents an improvement in carriage wheels, for which a patent was granted to John Shelley, of Brooklyn, L. I., on the 30th day of January, 1855. The improvement consists in the peculiar construction of the wheel, whereby it is claimed that light or small hubs may be used, and a more durable and stronger wheel produced, than in the ordinary way of constructing them.

Fig. 1 is a side elevation with these wheels applied, which shows the appearance a carriage will exhibit when they are employed in its construction. Fig. 2 is an illustration of the wheel as it appears without the rim, and at A showing the manner in which the short spokes are connected to the inner rim or circle, and also the connection of the latter with the long spokes. The spokes which go into the hub are driven in the ordinary way, and the short spokes are morticed into the separate pieces of the rim, as shown at A, when each short spoke with the rim attached, is pressed home by a circular ring made for that purpose, with hand screws running through it, as shown by fig. 3. Fig. 4 represents this circular clamp attached to the wheel, and by the aid of the screws pressing the inner rim to the desired location on each long spoke, when the whole connection of this inner rim is permanently secured by the application of a half oval band of iron front and back, with a number of rivets passing through both, and holding them firmly together.

Having of late received a number of letters of inquiry from our subscribers, relative to this wheel, its mode of construction, &c., we concluded to illustrate it, by which we trust we have satisfactorily answered those who have written us concerning it.

Mr. David Tilton, of New York, is the sole assignee of the inventor, and if any man or company of men should be desirous of establishing a factory for the building of these wheels, we are authorised to say, that they can purchase the right for one or as many States as they might want, on the most favorable terms.

Further information can also be had by letter addressed to D. TILTON, 12 Franklin Market, New York.

There are several things to be taken into consideration in making an axletree, and in hanging the wheels on the axle arms, according to the most approved mechanical principles; all of which greatly affect the running of a vehicle. Before a man attempts to make an axletree, either of iron or wood, he ought to have a most perfect understanding of the principles, according to which, the skilful carriage-maker constructs a vehicle of the carriage kind. He ought to be able to give a prompt and philosophical reason for making wheels dishing, a reason for making the axle arms tapering, and for setting the arms forward; and, more than all besides, to know where to make a mark in laying out an axletree, and to work exactly to that mark.

In this region of country, hickory and sugar maple are estimated as about the best kinds of wood for axletrees. But, there are some trees, of both hickory and maple, which are as destitute of tenacity and stiffness as pine; and no more suitable for axletrees than bass-wood or hemlock. Timber for axletrees should be very stiff, tenacious, and hard. Perhaps first rate iron-wood is not inferior to any other kind of wood for wood axletrees: indeed, it is allowed by those who have made use of it for axletrees, to be equal, and sometimes superior to the best of hickory.

But, whatever may be the kind of timber for an axletree, the heart side of the stick should always be on the upper side, if possible. Why? Because nearly all kinds of timber, after it is sawed into scantling or split into bolts, especially hickory, maple and iron-wood, will spring, more or less, and the crowning side will be the side of a stick nearest the heart of the tree; and a scantling, of nearly every kind of wood, unless it be taken from a very large log, midway between the heart and the top, will sustain a much greater weight with less deflexion when the heart side is upwards.

After timber is sawed into axletrees, how are we to know which is the heart side, and which the sap side? By looking at the concentric circles, or the grain of the wood, and if these be not very fine, one can determine at a glance of the eye which is the heart side of a stick. If such be the shape of the stick that it is not convenient to have the heart side upwards, that side which is nearest the heart side should be put upwards. We may rest assured, that if an axletree be made with the heart side downwards, and a load heavy enough to bend it a little, be placed upon it, it will soon spring so much that the position of the wheels will be altered, and, of course, the wheels will not track. No stick of wood should ever be made use of for an axletree, until it has been blocked out and thoroughly seasoned in an airy place, for one year previous to being put in a wagon. When a wooden axletree has once become sprung, it would not be a very feasible nor a practicable operation to restore it to its proper shape.

The first consideration in making an axletree either of wood or iron, is,

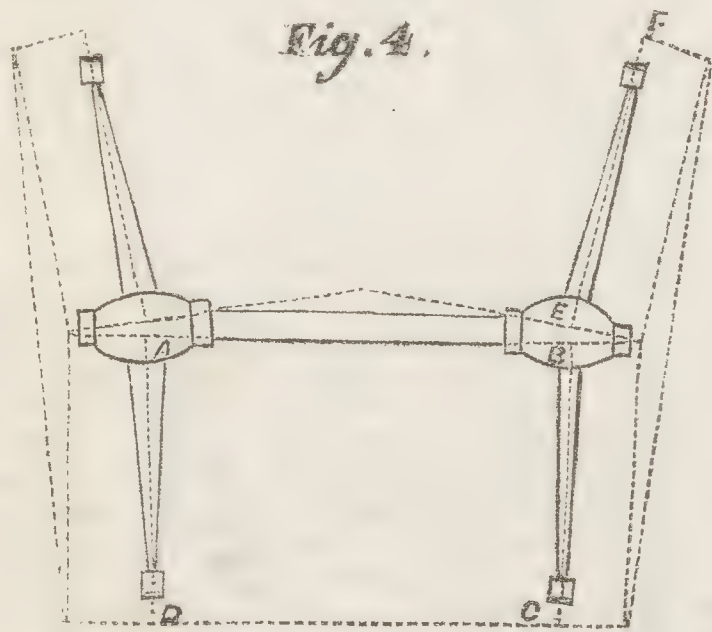
THE TRUE TAPER OF THE AXLE ARMS.

Why do we give any taper at all to the axle arms? Why do we

make some axle arms more tapering than others? What is the true taper for axle arms?

Were wheels made entirely straight, i. e. without any dish, (see article on wheels in Jan. No.) the taper of the axle arms would be an indifferent thing; and if the axles were tapered at all, in order to be in keeping with correct mechanical principles, they must be made like fig. 1, tapering only between the boxes, or the bearings of the axle arms, which is the same in its operations as an arm or journal, entirely straight. Fig. 1 is the correct shape for all axle arms, which are required to be tapering, the wheels for which are entirely straight.

But, since it is necessary to make carriage wheels dishing, in order to secure greater strength, it is necessary to place or hang the wheels on the axle arms, in the position which will secure the greatest strength, and the easiest draft. The true position then for wheels, is, whatever may be the dish, to stand on a plumb spoke; i. e. with the spokes on the under side of the wheels, standing perpendicularly. Neither the front or back side of the spokes should stand perpendicularly, but the centre of the spoke is the point from which to calculate. The under side of the axle arms should always be made horizontally; or, as some would say, level or straight, like fig. 3; whatever may be the shape of the other part of an axletree, or whatever may be the degree of taper. By this it will be seen at once that everything is in perfect accordance with the most approved mechanical principles. Were the underside of the axle arms made like fig. 2, the wheels will run hard against the shoulder of the axle; and then, unless the dish of the wheels be increased, they will not stand on a plumb spoke: and if they do not stand on a plumb spoke, they do not stand in the strongest position, nor in the position to secure the easiest draft. We taper the axle arms then in order to accommodate them to the dish of the wheels; and the dish of the wheels should always determine the degree of taper to be given to an axle arm. Wheels that are very dishing in order to have them stand on a plumb spoke, require their respective axle arms to be of a very obtuse or a blunt taper; while on the contrary, wheels that are but little dishing, require their respective axle arms to be tapering but a little. There is a regular rule for giving the taper to axle arms, and the following fig. 4 will throw some light on the subject.



Showing the taper of the Axle Arms and the dish of Wheels.

By this figure, I will explain what we are to understand by the dish of wheels; although this does not properly come under the subject of axletrees, still it is necessary to have a perfect understanding of this matter, before one can proceed intelligibly in giving the true taper to an axle arm. We usually reckon the depth of the dish of a kettle or a bowl, from the surface of the brim to the bottom; and some wheelers reckon the dish of wheels from the front surface of the rim to the front surface of the spokes at the surface or periphery of the hub of the wheel, which is very incorrect.

The correct dish of a wheel is described by the angle formed by a line cutting the centre of the rim of a wheel, which is the surface or brim of a dish, and by another line cutting the centre of the rim of the wheel, from the surface of the rim, through the centre of all the spokes, to the end of the tenons. The dotted lines in the figure show the dish. The figure represents very dishing wheels, in order to illustrate more plainly what we are to understand by the

dish. It will be observed that one of the wheels in the figure represents the spokes set alternately, or one out and one in, and that the depth of dish in such wheels is from the middle of both tenons, as if they both were one tenon.

Now, it will be clearly seen, how the correct taper is obtained to an axle arm. It will also be seen, that the centre of the spokes stand perpendicularly to, or at right angles with the surface of the axle arm on every side of the wheel, and that when a wheel is very dishing, the axle arm would run to a point in a much shorter distance than where the wheels are dishing but little. It will also be seen, that the angle formed by the dotted lines A B C D, forms a perfect square or a parallelogram, and that in calculating the width of the track of a carriage, the distance will be the same from the end of the tenons inside the hubs A B, as it is at the surface of the rims C D, and that when axle arms have the correct taper, we have only to measure the distance from the large end of the hubs to the point in the tenons of the spokes, which is the depth of the dish, and to add these two distances to the length of the axletree, between the shoulders, in order to obtain the most correct measure for the width of the track of any vehicle. When an axle arm is already made, how are we to ascertain how much dish a wheel should receive, in order to correspond with the taper of the axle arm? The arm, between the shoulder and the nut, is nine inches long, for example: now dress out a board nine inches wide, and five feet long, with one straight edge, and then make a fine mark, square across, near the middle, which will represent the underside of the axle arm. The arm is $1\frac{1}{2}$ inches in diameter at the large end, and $1\frac{1}{4}$ inches at the small end. Mark off the axle with the taper desired, then with a square placed on the marks, strike the dotted lines B C and E F, fig. 4, on each side of the arm, at a right angle, and then a line from C to F will give the amount of dish. It should be remembered, that in calculating the dish of any wheel, we must not reckon the distance through the axle arm as at E B, as that little point or corner, measured through the space of the arm, would make more difference than we are wont to suppose, and then this would not give the correct dish.

I herewith give the taper of a few arms and the dish of the wheels, which would correspond with the taper of the arms, which will give the underside of the wheels a perpendicular position. An arm 9 inches long, $1\frac{1}{2}$ inches at the large end, and $1\frac{1}{4}$ inches at small end, would give a wheel that is $4\frac{1}{2}$ feet in diameter just $\frac{3}{8}$ of an inch dish, in order to stand on a plumb spoke; which is not enough dish for the greatest strength. An arm 13 inches long, with 4 inches diameter at the large end, and 2 inches at the small end, will give a $4\frac{1}{2}$ feet wheel $1\frac{15}{16}$ inches dish; which is rather too much dish for the greatest strength. An arm of the same size will give a wheel $3\frac{1}{2}$ feet in diameter $1\frac{1}{2}$ inches dish.

Let us now see what a difference in the dish of wheels 1 inch will give in the length of arms. An arm 1 foot long, 4 inches at the large end, and 2 at the small end, will give a $4\frac{1}{2}$ feet wheel $2\frac{1}{4}$ inches dish, in order to stand on a plumb spoke, with the under side of the arms on a line with each other, like fig. 3. The same arm will give a $3\frac{1}{2}$ feet wheel $1\frac{1}{8}$ inches dish.

These few examples will show the importance, in order to have the carriage run just right, of giving the wheels the correct dish, and then the correct taper of the arms will follow, as a matter of course; or, if the arms be made first, they should be of such a taper as will correspond with the dish of wheels, of the strongest shape, and standing on a plumb spoke.

S. E. T.

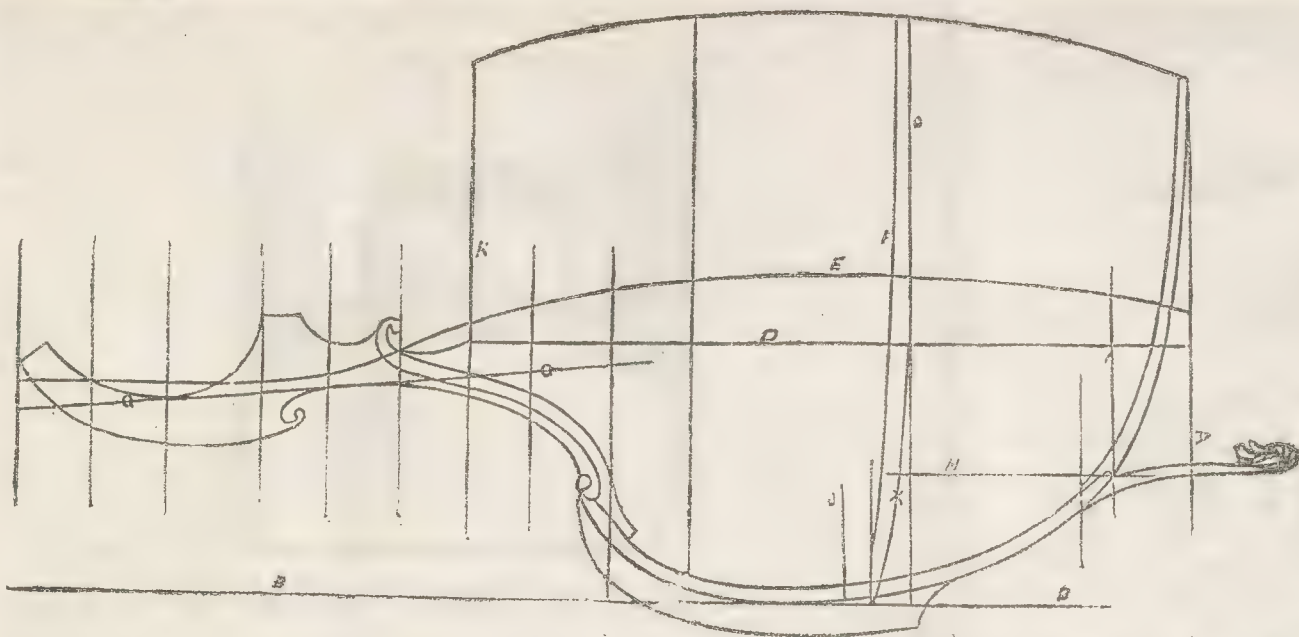
[To be continued.]

For Saladee's Magazine.

THE SQUARE RULE.—NO. 1.

Being associated, as I am, with the Coach-makers' Monthly Magazine, as its general agent, there are many very pleasing incidents connected with my ramblings from one part of country to another, my field of labor embracing not only the United States, but includes, I believe, all of North America.

A traveling agent, with any scientific work, subjects himself to the most rigid investigation and scrutiny. This has been my experience since my connection with our Magazine. The French Rule, published in last year's work, has been admired and purchased by thousands, who, I have reason to believe, will never regret the small sum of three dollars paid for one year's subscription to our monthly journal, embracing, as it does, not only the French Rule,



of bottom side, measure 4 inches less $\frac{1}{4}$ in., which you wish to project beyond pillar for shell or moulding, which brings it to line J; from line J back to line C and you have the width of kant board on line C, adding one quarter of an inch for top rail, to project beyond standing pillar. The front end at K is $1\frac{1}{2}$ inches, however that is immaterial, and may be made either heavier or lighter. The lock end is made $2\frac{1}{4}$ inches; by making lock pillar $1\frac{1}{2}$ inches thick, would leave 1 in. of bottom side on inside of pillar; for framing bottom bar this arrangement is for an end that is framed square. Pillars placed so in bottom side; such I believe to be much less work, and equally as good, particularly so for the ordinary kinds of work, such

as rockaways, &c. However, we will endeavor at some future time to show the mode of beveling the pillar, and so placing it in the bottom side.

A. T.

For the Coach-Makers' Magazine.

COACH-MAKING—PARIS—LONDON—NEW YORK.

but many other valuable rules by which our fraternity might add to their cabinet of useful and practical knowledge. In my intercourse with our profession during the past year, particularly among body makers, (which class I have the honor to belong to), as a natural consequence, found some that took exceptions to your system of body making, and the application of the rule to such, I must acknowledge, was somewhat objectionable, although I do not by any means wish to condemn or cast the least reflection. The system I believe to be a good and useful one, and in consideration of the above I suggested to Mr. Saladee the propriety of introducing my own practical observations, in applying the Square Rule to the manufacture of carriages, to which he readily assented, and gave notice accordingly in the Jan. No. that it should be forthcoming.

In introducing my system of applying the above rule to the building of bodies, I have not the least doubt it will conflict with many in their mode of application. To all such I would say be generous and give it a fair and careful investigation; after such, should you candidly believe that yours is the better mode, do as I have done, take the trouble to reduce it to writing, and make a diagram of the same, forward them to the address of the proprietor of the Magazine, and let us have the advantage of your experience and be numbered among those that labor to promote the welfare of their fellows, and have your name handed down to posterity as one that lived not altogether for himself, but that the world was the better for having him passed through it.

By referring to the Jan. No. of the present volume, you will see we have taken out No. 2 on which we will endeavor to apply the Rule. It will be seen by referring to our cut that our starting point is the perpendicular line A, which is the extreme length of back quarter. Line B B is the base, lowest point in bottom side, drawn parallel with edge of draft board, from which all perpendicular lines are drawn. The distance between lines B and E is just one-half of body, showing the variation in width from one extreme to the other.

As the dressing of the timber is the first part of our business in making a body, we will introduce that piece known as the front rocker. It will be seen by measurement that this piece of timber is made from plank $3\frac{1}{2}$ inches in thickness. You will see by continuing line D to the extreme front of body, we have made a concave of $\frac{1}{4}$ inches; this is done by first facing G side of rocker and then leveling off pointed side as represented in drawing by line D; this being done, D side becomes the face of rocker. In order now to transfer from draft board to the rocker, you will draw the six perpendicular lines across it, having the same on your draft board, by taking the compasses and placing one point on line C and the other on line E; carry the same to rocker, and by placing one point face on G and with the other make a mark on the wood; by following this process from line No. 1 to line K you have the correct shape transferred to the rocker. The face side G first made, now becomes the inside, and to leave it in its present shape would be heavy; you will then gauge it to any thickness you please, from the face side E. The same rule may be applied in the above manner for many purposes, where it would be impossible to use a pattern, having often applied it myself in making round end coaches.

We will next proceed to make a kant board for our cut, using bottom sides 4 inches in thickness. Where line x crosses the top

of bottom side, measure 4 inches less $\frac{1}{4}$ in., which you wish to project beyond pillar for shell or moulding, which brings it to line J; from line J back to line C and you have the width of kant board on line C, adding one quarter of an inch for top rail, to project beyond standing pillar. The front end at K is $1\frac{1}{2}$ inches, however that is immaterial, and may be made either heavier or lighter. The lock end is made $2\frac{1}{4}$ inches; by making lock pillar $1\frac{1}{2}$ inches thick, would leave 1 in. of bottom side on inside of pillar; for framing bottom bar this arrangement is for an end that is framed square. Pillars placed so in bottom side; such I believe to be much less work, and equally as good, particularly so for the ordinary kinds of work, such

as rockaways, &c. However, we will endeavor at some future time to show the mode of beveling the pillar, and so placing it in the bottom side.

We have been informed by several individuals whose testimonies all agree as to facts, and who have recently returned from visiting London and Paris, that the American coach-maker would learn but very little beneficial to us in the new world, in either of those old and populous cities. We are told by these travelers that we in America are far in advance of the old world in this particular branch of the mechanical arts, and that they are strenuously endeavoring to imitate and copy our recent and ingenious improvements, and only excel each other, as one individual exceeds his neighbor in his knowledge of the progress of the art in this country.

One gentleman of our acquaintance tells us that he visited personally the principal coach manufactories in the city of Paris, and conversed with the workmen, inspecting the work in course of construction—principally Coupe and Barouches,—which they denominated light work, but which we, in our judgment, would call very heavy and clumsy, and not at all to be compared with our light and graceful vehicles of the same description in the city of New York. Besides, this gentleman informs us, that the repositories for carriages in Paris were but poor concerns when compared with ours, both in the quality and quantity of the finished work contained in them.

From the specimens of English and French vehicles that have come under our own personal observation in America, we discover many points in their construction that in our opinion must be pronounced a weakness, to say the least of it, particularly in the arrangement of the fifth wheel to those carriages built without the perch, and in some examples the attachment of the shafts has proved very faulty—we would not consider the arrangement suitable even for a child's wagon, to be drawn by nurses. Now, how are we to account for the superiority manifest in our productions, both as regards their lightness and finish? Does not competition among ourselves contribute in a greater or less degree toward accomplishing this state of things? Is not the free and general diffusion of knowledge through the means of our public schools and the latitude we are accustomed to give to our thoughts and minds from childhood, produce these desirable and laudable results?

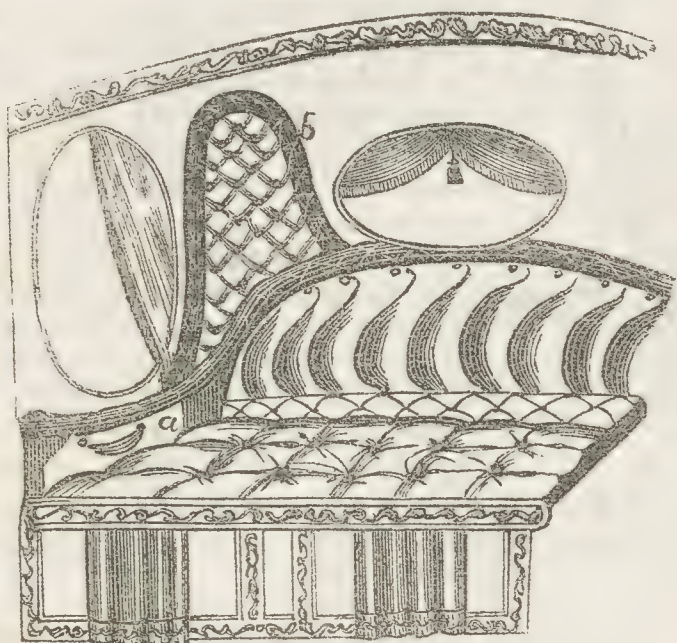
Our timber, doubtless, being much better in strength and greater in variety, gives us one advantage over our transatlantic craftsmen, yet on the other hand they possess old and McAdamized roads, with which the new and comparatively wild ones in this country cannot be named, and yet under all these advantageous circumstances, they continue still to make their work clumsy and as heavy as did their predecessors before them, to the evident destruction of horses and men.

The intelligent and liberal minded portion of the English public and carriage manufacturers freely admit that which is the fact, that in style, lightness, and durability, our best carriages very far exceed any thing of the kind produced in their own country. There is evidently a superior degree of talent and taste among the coach-makers of America, which cannot be found in the old world, and in which state of things we may feel an honest pride for ourselves, and strong encouragements to excel in the future.

E. M. S.

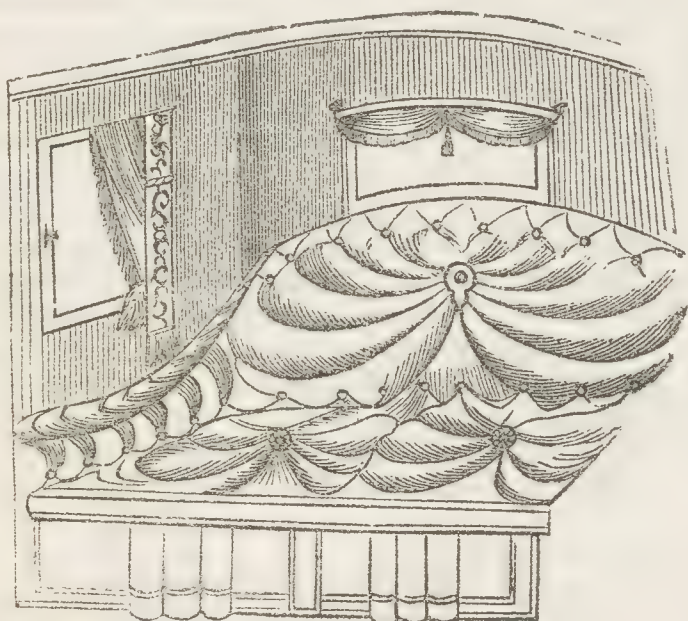
TRIMMING DEPARTMENT.

FIG. 2.



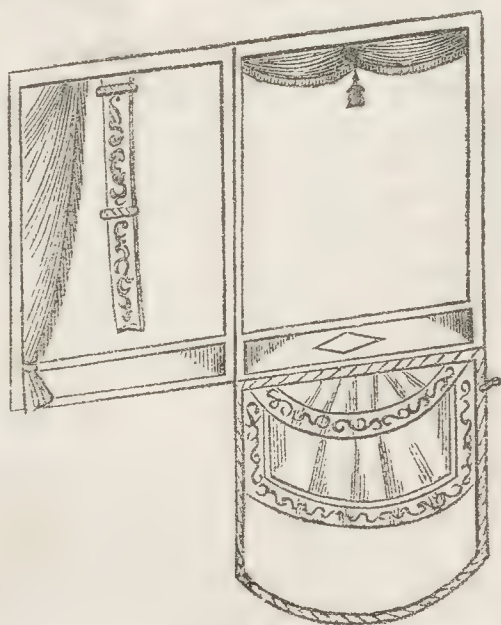
This engraving illustrates a style of trimming, in part quite new, and very fashionable in the city. The trimming in the back quarter is extended to the top, as represented in the illustration.

FIG. 3.



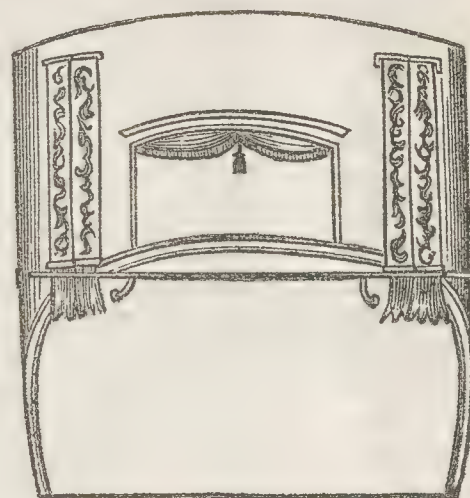
This is something in the way of trimming for a coach entirely new, and very rich in its appearance. Plates drawn to centre of back, and cushions with button or rosette made for that purpose. Material—Lyon's or Tuoro's French Coteleane.

FIG. 4.



View of Door and front Windows of a Coach Calash. New style half round falls.

FIG. 5.



Back view of Coach—four Tassels in brown silk, and snow stitched holders. Mc.

Trimming for Buggies in our next.

Painting Department.

PAINTING—BY A PAINTER.—NO. 2.

In our last we had brought the body as far along as the "rough stuff," and will now proceed to give the proper method to mix it. If it is a heavy job it will require at least four coats, and on the large pannels five. But on light work, as buggies, &c., three is all that will be necessary. Take to a quart of yellow ochre about three-fourths of a lb of wet lead, and 1 lb of dry lead. (If for buggy work, take a couple of ounces red lead.) Then pour in enough japan to mix it to the consistency of putty; add about one-third of a pint of varnish, using but very little turpentine, and grind it. This forms the best article of rough-stuff that can be made.

Some, in mixing it, use only the wet lead, but it is not so good a plan as the previous. As from so much oil being in it tends to prevent the rough-stuff getting thoroughly hard. When the work is not in a hurry, it is much better only to put on a coat every other day. But on light work, when the red lead is employed, one coat a day will not injure it in the least. A few years since (in '52 if I recollect) an article found its way into a great many manufactories designed to do away with the old fashioned plan of rough-stuff; no lead was to be used with it, no time was to be lost in useless grinding, in short, it was to work a miniature revolution among carriage painters. The high sounding name of "Patent English Filling" was enough to recommend it to almost all proprietors of carriage factories, and for a time it took amazingly. The surface of the work rubbed smooth, finished up beautiful, and the old rough-stuff was voted a "bore." But in a few months, after the work so finished had been running, bosses were surprised at their work coming back to be repainted. Painters felt bad, and blamed the varnish, &c.; still the work continued to crack. But when the discovery was made that the "Patent English Filling" was nothing more or less than the celebrated "Fire Proof Paint," the matter explained itself. This paint, it is well known, is procured from the head of a small stream in Ohio, and, for house-painters purposes, answers very well. The phosphate of lime, (of which it contains about 20 per cent.,) being neutralized by the large quantity of oil with which it is mixed. But when it was used as a carriage paint the "fire proof" did not prove to be carriage proof. So the painters fell back on the old fashioned plan, sadder and wiser painters.

Some painters when they happen to have a poor article of japan, reserve it for the purpose of using for the rough-stuff, but a greater error could not be made, for the principal object is to have it get hard, and how can it do so, if an inferior article is used in preparing it. Bad japan in a carriage shop is emphatically a nuisance, and all painters will agree with me. Many prefer to make their own, but it is the safest and best plan to procure it from some manufacturer and if not a good article return it. In the eastern cities Bibelow & Price's bears the best reputation, while out West the Queen City japan is almost entirely used. But there are many other manufacturers who bear a good reputation as japan makers.

In putting on the filling care must be taken not to use too great a quantity of turpentine, as from this cause many a well painted job otherwise will crack and come off in patches. The turpentine tends to impair the substance of the paint, making it mealy and brittle. When too great a quantity is used, the rough stuff can be almost all removed by rubbing it with a wet sponge.

Again, by using too much varnish in mixing it, renders it so hard that it is a vexation, and almost loss of time to attempt rubbing it, and all this superior hardness does not benefit the job in the least, for where the body is exposed to the heat for any length of time, it is very apt to crack.

Any directions as to the proper method of rubbing would be superfluous, as any apprentice knows that the object to be obtained is a smooth surface. Some rub the body as low as possible, while others maintain it is not necessary. But I think that all the rough-stuff should be rubbed quite low, and when the lead beneath is perfectly hard and dry there is no danger of the grain of the wood raising up. After the body is rubbed, it should be thoroughly washed clean, and set aside to get well dried.

Now, we come to a subject on which our opinion may be laughed at by many, and perhaps few will side with us, namely, the putting on a coat of dry lead after the body is rubbed. But a practical experience of many years has shown me that the idea of a coat of lead being necessary to hold the succeeding coats firm, (as almost the majority of painters believe) is a silly one to say the least of it. I do not deny that it is useful on heavy work, such as coaches, &c., for there is almost always a call for a little more putty on them after rubbing. But I hold that it is useless to put on a coat of lead on light work such as buggies, &c. Let the work have a good, careful going over with sand paper, dust it off clean, and if it is to be painted any common color give it a thin coat of lamp-black mixed with a little japan. If to be a lake or claret, add a small quantity of indian red; when dry, take a piece of hair or moss and rub it over and your work is ready for the color. Let any dubious skeptic adopt this plan for a short time observe the effect, and soon, instead of inhaling that "death powder" which fills the air when sanding off the dry lead, they will throw aside their prejudice and side with me.

Now, we have come to the color, and before proceeding further I will give a short list of such of them as are generally used, and the best method of ascertaining the purity of their

WET LEAD AND DRY LEAD.

This, we might say, forms the staple article, and it would be a hard matter to find a substitute for it after an inferior article has been used, but carriage painting calls for the pure No. 1. Use a keg of No. 2 or 3 wet lead and you will find that it does not fill up the grain of the wood so well or sand paper off so neat as the No. 1. Oftentimes we find the priming does not dry hard, but has a sticky, greasy appearance; but it is not so much the cause of too much oil, as it is a poor quality of lead. Almost all the lead is marked No. 1 and some is No. extra, but you can readily ascertain the bona fide by taking a small portion of it and place it on a hot iron. If it turns to a light yellow or amber cast, you may be sure that whiting or gypsum forms a part of the lead. If pure it will keep its color, although the iron be heated nearly red. In the same manner you can test the purity of dry lead; if it is a good article it will keep its color exposed to an intense heat. But if adulterated with any other substance, it will crumble and turn to a dull grey color.

DROP BLACK.

There are many kinds of black sold under this head, and it takes an experienced hand to choose a good article of it. There is no certain test to be guided by. The best kind weighs heavier than the others. It is produced by subjecting the bones of animals to an intense heat in air tight vessels or crucibles, but the most of what is sold as drop black is burnt peach stones and shells of nuts, and much lighter than the previous. In mixing the color it is customary to add from one-third to one-half of Prussian blue, which gives the color more depth and brilliancy.

LAMP BLACK.

Holding a plate or sheet of tin over the blaze of a candle or lamp, and getting the soot collected on the surface would procure the genuine lamp-black, but it is manufactured on a larger scale to obtain what we use. In New Jersey and through North and South

Carolina, there are large smoke stacks, burning up hundreds of cords of the "pitch pine" for no other purpose than to obtain the soot which collects on the sides of the chimneys. But there are large quantities used, obtained from the chimneys of dwelling houses, but it is a poor article from the reason that the mortar and dirt often get into it, which causes the grit sometimes to be met with. Often lamp black is found to contain an oily resinous matter, but this can readily be obviated by placing some of the black on a sheet of iron and exposing it over a fire until it ceases to smoke, when it will be found perfectly free from all impurities; it will also improve the color very much. Some use it prepared in this manner in preference to the drop-black, but unless great care is taken it will make the work have a streaked appearance.

BROWNS

Of which there are many different shades, have mostly for their basis either drop or lamp-black. If a strong body is required, in the color, lamp-black is used, but the shade is not so delicate as when the drop-black is used. For a common brown two parts of black and one part of Indian red should be used. The addition of a very small quantity of dry lead greatly heightens the color and deprives it of the muddy tint usually to be met with. For a rich brown take two parts of drop-black and one part of vermillion, adding a little dry lead, and in mixing use a little varnish in the color. B. McC.

For Saladee's Magazine.

IMPROVED CHISEL.

MR. SALADEE:—I have an improved Mortising Chisel which is entirely new and original with myself, but it may not be to others. I have used the chisel and it works first rate. I send you a draft of it, and if you think it worth publishing you are at liberty to do so.

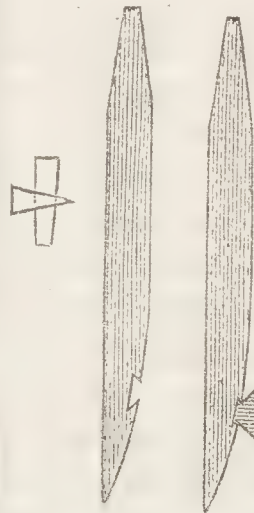


Fig. 1 represents the chisel ready for use. The spur on the back side is attached to the chisel by filing a dove tail as seen in fig. 2, then nicely fitting a piece of steel with a spur to it, and filed in the shape as represented in fig. 3. The lower sharp and the upper edge about 3-16 of an inch thick, and filed in the shape as represented in fig. 1. The spur should project back from the chisel $\frac{1}{4}$ in. This is calculated for a $\frac{1}{2}$ chisel. The spur for smaller chisels should be made in proportion. The object of this spur is, when the chisel is pushed in the hub, the lower edge being sharp, it cuts the chip in two, and when pulled out of the hub, it pulls the chip out with it. When the chisel becomes dull, it can be easily sharpened by driving out the piece fitted in the chisel (which should be a little tapering) and then ground the same as any other chisel; see fig. 2. It can be attached to any common chisel with half an hour's work, and I would advise any one who has anything to do with mortising hubs, to give it a trial.

St. Charles, Ill.

Yours, &c.,

J. W. Y.

SANDS OF GOLD.

Good is never more effectually performed than when it is produced by slow degrees.—*Du Moy.*

In France, one cannot triumph unless one is crowned in the person of the victor.—*Balzac.*

Men's judgments are a parcel of their fortunes; and things outward do draw the inward quality after them to suffer all alike.—*Shakspeare.*

If we did but know how little some enjoy of the great things that they possess, there would not be much envy in the world.—*Young.*

It is certain that either wise bearing, or ignorant carriage, is caught, as men take diseases, one of another: therefore, let men take heed of their company.—*Shakspeare.*

There is a certain lively gratitude which not only acquits us of the obligations we have received, but, by paying what we owe them, makes our friends indebted to us.—*La Rochefoucauld.*

EDITOR'S TABLE.

FEBRUARY

1856.

THE NEW YEAR AND NEW YEAR'S DAY IN NEW YORK.

Under the monarchical forms of government, it is held that the King can never die. When the reigning monarch is prostrated upon a bed of mental sickness, and when the physicians who watch the fast receding pulse, announce to those who surround the dying man—"The King is dead," the shout is at once raised, "long live the King," and every knee bends to the new sovereign. In a like sense time never dies, but each succeeding moment falls silently into the vast ocean of eternity, only to be followed by others until the final moment when the angel is commissioned to proclaim, "Time shall be no longer."

Since our last issue, a New Year has been ushered into birth, and Old 1855 has passed away, with all its freight of remembrances, its records of happiness and delight, of woe, want, misery and crime. What is passed in the twelve months that made up its calendar cannot be recalled. The recording angel has been faithful to his trust; may we not hope that wherein our errors have been registered, the sympathising spirit has skipped a leaf on the page, which will be remembered for us in mercy. It is fitting that the advent of a new year should be marked by us, as an important stand—a point from which we can look back into the past, and cast our thoughts hopefully forward to the future. It is a season, says the poet,

"For resolutions, good and brave."

Few among men are so irretrievably bad as not to mourn over their sins of omission and commission; when inexorable memory sets them in order before their minds, and there are few so depraved as not to yearn anxiously for a better life, to avoid the paths of evil, of bad council, of a thoughtless existence, and to turn to wisdom, "whose ways are ways of pleasantness, and all her paths are peace." It is fitting, too, we think, that this period should be made a holiday season; one of mutual congratulations, for the interchange of kindly courtesies, and for the indulgence of heartfelt wishes to all our friends and neighbors. It should be a season of good will to all. In this we are supported by the "Father of our Country," who considered the appropriate observance of this portion of the year as a custom that should be encouraged.

And here we are brought to speak of the New-Year's day custom in New York, which is observed in a manner peculiar to itself. Often as we have visited the great metropolis, it never so happened that we tarried within its borders on the first of January. Last New-Year's eve, however, found us in company with our worthy assistant, Mr. E. M. STRATTON, (and in whose very interesting and intelligent family we spent a few short days so agreeably, that in the future they will be remembered among the most pleasing recollections of our past life,) who kindly volunteered to show us New York as it is on the first day of the year. The next morning we arose accordingly bright and early to prepare for the anticipated adventures of the day.

The first scene in the great drama worthy of notice, was the appearance of the old King of the planets in the eastern horizon, ascending, as it were, with renewed glory; smiling upon the vast city, and causing its mammoth piles of architecture, its lofty spires, and high masts of a thousand ships to sparkle with grandeur in his golden light, and with an impartial smile did he seem to bid us all "a happy New-Year." It was a day to tempt the most inveterate

stay-at-home body to indulge in a little sunshine and out-door recreation. The fall of snow on the Saturday previous, most of which remained on the ground, greatly contributed to increase the usual jollification, and every thing in the shape of a sleigh was called into requisition. There was one universal go from morning until midnight, and for ought we know, much later.

New York, it may be said, had, for once, a good time, if it never had before. Livery stable keepers were much sought after, and prices for vehicles of every description ranged extravagantly high. We were informed it was a matter almost impossible to obtain anything of a team under \$25, and in some instances two-horse sleighs brought as high as \$100 and \$150 each, according to quality. There were some magnificent displays of vehicles on runners, some with six, eight, ten, twelve, and some indeed with sixteen horses attached, each vying to outstrip the other. Broadway, the Bowery, Chatham Street, and other thoroughfares were utterly alive with reeking horseflesh, and careening pedestrians, and the merry ringing of the sleigh bells lent an additional attraction to the festive scene; but the exhausted horses, smashed up sleighs, the ill-fated carriages that we saw strayed about here and there as we passed through the various avenues, also added truth to the old song of—"The devil always is to pay, when fools go out a sleighing."

Open house was the order of the day, and feasting and merry making the joy and delight of the household and the visitors thereof. The ladies were dressed to captivate, and waist and whalebone were in the ascendant; such bewitching smiles, such bare arms, ornamented with costly bracelets, such white necks and shoulders, with shining black curls dangling carelessly about them, such hoops, such balloon dresses, as we saw that day, within the palaces of the money kings of New York, the most expert novelist that ever penned a fairy tale, could hardly describe.

Every body was calling upon every body. The people were full of fun, every body was wishing every body else "a happy New-Year," and every body else was doing the same towards their fellows. Old scores were forgotten, and new friendships formed. Every body that was any body was desirous of giving something away to some body, and amid this general outpouring of generosity and good feeling, the poor, whom it is said we always have with us, were not forgotten, but on the contrary were sent away heavily laden with the good things of this life, and with lighter and happier hearts than they had ever before known. While croakers, therefore, condemn these New York calls on New-Year's day, or the manner in which they celebrate it, let them also bear in mind, that this custom puts thousands of dollars into the hands of the needy, which, but for that custom, might never have seen the light of day; and many, who for a time were made happy, might have commenced the new year penniless and unhappy. True, there were some, yea, hundreds, who doubtless did thus penniless and unhappily enter upon the duties of the new year; but this was the result of their own folly in the extravagant indulgence of the *spirits* of just men made perfect. And yet, while some were rendered miserable, many were made happy.

Having made some thirty calls, we retired from the busy scene, and in a social chat spent the evening with our old friends before mentioned; and in connection with this it affords us great pleasure in being able to say, that Bro. Stratton is a genius in our ranks of the first stamp; as a mechanic he is seldom equalled; and as a scholar, no mechanic excels him. He evidently takes great pride in his profession, as a practical coach-maker, and in his books (of which he has a large and well selected library,) he seems to find

that mental happiness which all intelligent and liberal minds are susceptible of enjoying in the perusal of refined literature. Hence, he is in every way qualified to discharge with dignity the task he has taken upon himself in the Magazine as our assistant, and most heartily do we give him the hand of fellowship.

IN BOSTON.—After the excitement of New-Year's day had subsided, we concluded to pay our friends in Boston a flying visit. The coach-makers in the city we found for the most part busily engaged in sleigh building, and for which there seems to be a great demand, as the roads are in fine order for the use of these sliding vehicles. Some of our readers South and West would doubtless be surprised if they were told that in the city of Boston there could be seen sleighs which cost from five hundred to a thousand dollars! but it is nevertheless so, as we had the pleasure of seeing several that were represented as costing the above sums, and we found no good reason to doubt it, when we come to consider the great amount of carving and ornamental work that is lavished upon them. Some that are very large, say fifty passenger, intended for eight or twelve horses, have a body constructed after the mode of a ship's hull, with artificial port holes, gilded and ornamented in the most complete style of the art, and the front extremity of the body is topped off with some beautifully carved figure, representing an eagle, a lion, an Indian, or the front half of a horse, whose neck is bowed up, holding the head in the most proud position conceivable, while his fore feet are stretched straight forward, and resting on a platform. With such a multiplicity of work as the construction of those sleighs require, it is no longer to be wondered at that they are made to cost \$1000 and upwards. The more common class of sleighs range from \$65 to \$300, and \$350.

A WORD TO THE APPRENTICE.

As the apprentice is particularly benefitted and deeply interested in the perusal of our Magazine, it affords us great pleasure to pen, occasionally, an article expressly for him. Having once been an apprentice ourself, we feel capable of saying many things to you, which if properly heeded, will add materially to the welfare of your future career in the occupation you have chosen to follow. Do we hear you say that you are anxious to become a *master* workman, that you desire to honor your trade, and thereby become happy and prosperous? If so, then stay with us for a moment that you may hear what we have to say upon this subject.

It is a prevalent and indeed a very natural thing for young men to sink down when discouraged, when obstacles present themselves in the way of easy progress in the trade they have undertaken to master. You will often *slur* over what you find to be difficult or disagreeable in your rounds of duty, without once thinking of the wrong you do to yourself and others, and the ever occurring evil which such a habit engenders. A constant self-watching is needed if you would get along well, and you cannot prosper without it. Remember you injure yourself more than your employer, when you give way to slothful feelings, and become merely an eye servant, while on the other hand, by constantly keeping in mind and practising upon the motto, *do the best you can*, you gain the good will of all around you, and especially that of your master. Then, when time and opportunity arrives for advancement, you will rarely want a helping hand. To do the best you can is not to plod on day by day, performing the allotted round of duty uncomplainingly, without once thinking of better things, or independence for yourself and for those in whose existence yours is bound up. Neither is it on the other hand to let the thoughts of your own superior worth

and watchfulness for chances predominate in all you say and do, so that it can only be said you do your duty and nothing more, nor yet is it to think of your work as so much of a task, to be rid of as soon as possible, so that you may spend every other moment in idleness or mere amusement without aim or object beyond passing pleasure. Thus you can never become useful, respectable, or happy, for the habits you form while an apprentice will invariably follow you through life.

To do the best you can, is, so far as possible, to lay down a course of life in your own mind to which you will attend if possible, and then keep your eye upon it wherever you are, or whatever you do. If you are determined to be a master workman, let every day of your apprenticeship show that you have learned some new thing or principle in your trade; no matter how little or trifling the thing may be. Under all circumstances, strive to make the work which goes through your hands just such as you would be proud of if you had turned it out as an employer. Connect yourself with some library, or in other ways, obtain, if possible, books descriptive of the art or trade in which you are engaged, and lose no opportunity to obtain information upon every branch and minute detail of your occupation, so that you may thoroughly understand it. Relaxation you must have, of course, but while you seek and enjoy it, see if you cannot adopt even that to the aim you have chosen.

Your first steps in such a course will be hard ones; you will, by times, feel terribly discouraged, but persevere, remembering that the beginning of any new thing is always the most difficult, and when you cannot do all you would, then do all you can, and be content therewith. But, remember also, young man, that as you hope for success and happiness in days yet to come, *never retreat, nor give up the contest* in which you are engaged as an apprentice; review it, if needs be, day by day, and year by year, and when once you get fairly started, the progress you make will encourage you on, and former difficulties will vanish like mist before a strong wind. Soon you will gain confidence in your position. A superior intelligence will manifest itself in your work, and as you compare yourself with your fellow workmen, those who work without thought or study, you will discover, little by little, that the secret of success in life is perseverance and close application. Young men, think of it.

THE ENGLISH DEFINITION OF WHEEL CARRIAGES.

No. 1.

A wheel carriage, (says Mr. Adams), moved by internal action, as when steam power is combined with it, may be defined—a primary machine for the purpose of locomotion.

A wheel carriage moved by external action may be defined—a secondary machine for the purpose of locomotion.

A machine, properly so called, is a material combination of two or more of the means designated by mechanicians as “mechanical powers,” whereby the forces known as animal and elemental power may be transmitted to other bodies with various modifications, for the purpose of producing motion in them.

Animal and elemental power may be divided into two classes: that which acts by the force of elasticity, and that which acts by the force of gravity.

When a horse is used for the purpose of draught, part of his power consists in the elastic action of his muscles, which serve to throw his body forward, as when he first bends and then straightens his limbs; and part of it in gravity, as when he hangs his body forward against the traces after the expansive muscular action is

expended. For this reason a heavy horse can do more work than a light one, with less fatigue, even though the muscular action of both be of equal power.

When a man works the wheel of a tread-mill by climbing from step to step, it is the force of gravity alone which acts directly. The elasticity of his muscles only serves to enable him to maintain a position in which his gravity can be available to produce motion.

When a man lifts a weight from the ground in a vertical position, it is the force of elasticity alone which acts; viz: the expansion and contraction of his muscles: the weight of his body does not enter into the account as a producer of motion. A man whose muscles possess great power of expansion and contraction will exert more force than a much heavier man whose muscles do not possess the same power.

But when a man pulls a rope above his head without his feet being fastened to the surface on which he stands, the elasticity of his muscles only serves to secure his gripe on the rope: all the motion he can give it is the effect of the gravity of his body,—so that a heavy man will exert more force than a light one.

Amongst elemental powers, steam may be considered as an example of pure elasticity. This power is used in numberless modes as a first mover.

Atmospheric air, on the contrary, possesses the powers both of elasticity and gravity. The former is shown in its action in the form of wind upon mills, and also in its compressibility; the latter, by its downward action in the piston of an atmospheric steam-engine, when the steam which served by its elastic force to raise the piston has been again condensed and restored to the state of water.

The water of running streams, which is applied to turn mill-wheels, is an example of the force of pure gravity. The tidal power of the ocean is precisely the same, when applied to mill-wheels.

As the elastic forces of gases has not yet been efficiently applied to produce motion, they may be omitted. The classification, then, of the available "powers" will be as follows: Animal Power, Wind Power, Water Power, Steam Power.

The two kinds of force by which the powers are made available to perform human drudgery, viz: elasticity and gravity, may be considered as primary and secondary; for in no case can gravity produce motion until it has been acted on or disturbed by elasticity. Thus, the horse's weight or gravity in draught is not brought into action until the elasticity of the muscle has thrown the centre over the base. The gravity of the man on the tread-wheel does not act till the elasticity of his muscles has raised him the necessary height. The man who pulls the rope cannot bring his gravity to act, till the elasticity of his muscles has raised him from the ground, and served to suspend him from the rope. The weight of the atmospheric air cannot drive down the piston of the steam-engine till the elastic action of the vapor has first raised it. The water of the running stream cannot bring its gravity to bear on the mill-wheel, till it has been first raised from the surface of the ocean to the summit level of the fountain head, in the form of elastic vapor.

Therefore the material source of all physical power may be considered to reside in the principle of elasticity; and the secondary means of distributing this power consist in certain natural forms of matter which man has imitated, and which mechanics have agreed to designate as mechanical powers, but which, it is evident, are not powers in themselves, but merely vehicles or instruments for the transmission of power, just as a steam-engine is a vehicle for the employment of steam power or the force of steam.

The mechanical powers, as set forth by mechanics, are six in

number: The Lever, the Wheel and Axis, the Pulley, the Inclined Plane, the Wedge and the Screw. These may be divided into two simple powers, of which the other four are combinations or modifications. The lever and the inclined plane are the simplest ones.

The common poker wherewith a fire is stirred is a familiar example of the lever. The poker is suspended on the bar of the grate as a fulcrum; the power or force with which it acts depends on the proportion in which the radius or circle described by the hand in moving it, exceeds the radius or circle described by the coals which are moved: in similar language, in proportion as the length of poker outside the bar exceeds the length of poker inside the bar. The handle of a common pump is another familiar instance. The type of the lever may be found in nature, in the tree, which, spreading farther into the air than it does into the earth, is acted on by violent wind, and in falling, tears up the solid ground with its roots. In this case the elastic force of the air is the mover. Another type is found in the ocean cliff, which becoming gradually undermined by the influx of the wave, at length projects far over the strand, till it acquires a leverage overpowering the cohesion of its material, and then comes gravity to weigh it down and leave a mass of ruins on the margin of the sea, which by the friction of attrition gradually reduces it into sand.

An inclined plane is a straight surface, one side of which is lower than another—or, in other words, which dips downward from a horizontal level and forms an angle with it. It is the especial instrument with which gravity works. Where a rolling body is placed on a sufficiently inclined plane, the centre of gravity or weight overhangs the base or bearing point, and motion ensues, which only ceases when the horizontal level causes the centre of gravity to fall within the base. A wheel carriage rolling down hill is a familiar example of the use of the inclined plane.

[To be continued.]

A NEW FEATURE IN THE MAGAZINE.—Inasmuch as harness, and harness-making is a branch which is closely linked to carriages and carriage-making, we have concluded to add to the Magazine a harness department, in which will be given monthly illustrations of the latest and most approved styles of harness, together with all the various forms of stitching, &c. &c. Mr. Rob't M. Selleck, (253 Pearl St., New York,) who is an experienced and very intelligent harness maker, has been engaged to edit this department. From our personal knowledge of Mr. S. as a scientific and well informed mechanic, we have no hesitancy in saying that this department of the Magazine will be conducted with marked ability. This new feature will be introduced in the next No. and continued regularly.

BOUTON & REID, NEW YORK.—We take pleasure in referring our readers to the advertisement of the above gentlemen. Having just visited their house in person, and formed a slight acquaintance with its proprietors and the extent of their business, we are induced, from what we saw, to class them among the most liberal and extensive Coach Hardware and Trimming merchants in New York. No article is used in the carriage department that is not here to be found, of every description.

NOTICE.—Mr. GEO. N. DEXTER, of Washington City, is appointed to act as traveling agent for the Coach-Makers' Magazine, and for collecting orders for Sprout's Springs. The South will be his field of labor for the winter.

THE VOLUME FOR 1855.

Notwithstanding we have twice reprinted the back numbers of the Magazine for 1855, the demand has already exhausted our supply. We are daily in receipt of orders for the volume complete, and we are sorry in being compelled to say that at this time it is impossible for us to furnish them. We would say, however, that we are taking down all those names who are ordering the last volume, and should the list in the course of six months to come, be increased to an extent that will barely justify us in reprinting still another edition, we shall be most happy to do so.

We are also receiving from many of our old subscribers communications informing us that they lack, some one, some two, and others more of the back numbers to complete their volume, for which they have paid us. Others, again, of our later subscribers, complain that they have not received the first four and six numbers of the last volume, which as they understood was to be mailed to them in Nov. last. Now, we can assure our friends and patrons who have written us on this subject, that their numbers have been mailed to them correctly and at the date promised, and if, by the incomplete management of the mails, they have been lost or destroyed, it is a fault which should in no wise rest upon our shoulders. But, notwithstanding this deplorable mishap, of which we can have no control whatever, we will nevertheless make a satisfactory arrangement with all those who have been thus disappointed, by forwarding the missing numbers should we again reprint, or credit them on the present volume with the numbers lost, and if this be not satisfactory, we will give to each whose volume for 1855 is incomplete, the volume for 1856 complete, by returning to us the odd numbers on hand.

Will those for whom this is intended inform us immediately which of the above propositions they will accept, and we will most cheerfully comply. We feel anxious to render to this class of our subscribers entire satisfaction, and we trust that one of the three propositions above given, will prove sufficient to accomplish this end.

CHOPE'S PATENT COUPLING FOR CARRIAGES.

Some few weeks ago, as we were passing through Detroit, en route for New York, we chanced to see a new improvement in the coupling of a carriage, by which it is caused to turn in a very short space. The object of this invention is the same as in that of Haussknecht's, Everett's, and Cisco's, but it is more simple in its mode of construction and application. And in point of real practical worth, we must admit, it is superior to any thing of the kind we have ever before inspected. We have already shown our readers the mechanical imperfections which become apparent in the use of the Everett Coupling, by throwing the front extremity of the perch and head block off from the centre of the fore axle when in the act of turning. This evil, however, is entirely obviated in the Cisco Coupling, (illustrated in our last No.,) by retaining the front end of the reach in the centre of the axle, as in all ordinary connections at that point, and consequently does not lose the control of the carriage as in the Everett Coupling, but operates entirely upon the body. But the grand objection which is so universally offered to all couplings of this class, (viz: throwing the weight of the front extremity of the carriage off from the axle, and that too in the opposite direction in which the vehicle is being turned, consequently increasing its liabilities to upset,) is entirely overcome in the improvement above referred to, and is accomplished in a manner so simple, that we have only to wonder that it was never before discovered by those who were experimenting in improvements

of a similar character. It was our intention to illustrate this Coupling in the present No. of the Magazine, but owing to circumstances of which we have no control, it must be omitted, and appear in our next, when a beautiful illustration will be given, and more fully explained.

MESSRS. PRATT & LETCHWORTH.—Among the names of the most prominent and enterprising business men of this or any other country, that of Messrs. Pratt & Letchworth, of Buffalo, N. Y., is justly entitled to a conspicuous place. We were never more agreeably surprised, than when we entered this mammoth Coach Hardware and Trimming establishment, some weeks ago, and saw the extent to which a business of this kind is conducted in that city. Our visit was not only rendered interesting because of the magnitude of the house and its great variety and quantity of goods, but more particularly from observing the perfect manner in which these gentlemen have reduced a business so vast to so compact a system. Everything seems to be conducted from the basement to the fifth story in a manner that certainly reflects great credit upon those gentlemen, as high minded, enterprising business men. Those of our mechanics who may see proper to give this house their patronage, will find not only that they can deal with them on the most favorable terms, but will find in Mr. Letchworth a gentleman every way worthy of their esteem and friendship.

A practical Coach-maker, who is desirous of obtaining a situation where he can have the foremanship of a shop working from 20 to 50 hands, can be obtained by letter addressed to this office. The best of reference can be given. If there is any proprietor in want of a man who is fully capable of taking this responsible part in his business, he will do well to address us immediately, when a correspondence will be opened between the parties.

HUB BORING MACHINE.—We take pleasure in referring our readers to an advertisement in the Magazine, of the above named article, manufactured by Messrs. Dole, Silver and Felch, at Salem, Ohio. Having seen these machines in operation, we most cheerfully endorse all their proprietors claim for them. Knowing its practical utility, and recommended as it is by many of our most prominent Carriage and Wagon-makers, we bespeak for its proprietors the patronage of our fraternity. A. T.

FREEMAN'S PATENT BUGGY.—We had the pleasure some weeks ago, of seeing this improvement (which is illustrated on Plate 5,) in practical shape, and were very much pleased with its manner of construction and operation, and from the hasty inspection which we gave it, are not backward in saying that it is really an *improvement* in carriages. More information can be had by letter addressed to DANIEL FREEMAN, Burford, C. W.

BROWN'S PATENT BUGGY.—In Dorchester, Mass., we had the pleasure of seeing a very novel improvement in the construction of light buggies, an illustration of which shall be given in the next No. of the Magazine. The body of this carriage is suspended on C springs and thorough braces, which renders the vehicle much lighter than with the elliptic, and at the same time more durable and equally elastic.

THE CLINTON IMPROVEMENT IN CARRIAGES.—Mr. A. J. Gipson, of Clinton, Mass., has obtained four different patents for improvements in carriages, which consist in the springs, the coupling, the shaft connection and the connection of the singletree to the axle, all of which will be illustrated in our next.

Contributors to this Number.

"CRANE-NECK COACH,"	E. M. Stratton, of N. Y.
"ROCKAWAY WITH SPANISH TOP,"	Abr'm Terrill, of Ohio.
"CANADIAN BUGGY,"	G. P. Moore, of C. W.
"SALADEE'S EQUIROTAL PHÆTON, 3 WHEELS,"	The Editor.
"SALADEE'S SKELETON CITY CALASH,"	"
"PAINTING, BY A PAINTER—No. 2,"	B. McCroher, of Mo.
"IMPROVED CHISEL,"	J. W. Yates, of Illinois.
"COACH-MAKING—PARIS—LONDON—NEW YORK,"	E. M. Stratton, of N. Y.
"AXLE TREES,"	S. E. Todd, "
"TRIMMINGS,"	McLane.

ANSWER TO CORRESPONDENTS.

T. B., of N. Y.—Your drawing of the Clarence Coach is well executed, but you ought to be aware of the fact that the original design of those carriages (of which yours is a sketch,) have long since been superseded by a style of work more pleasing to the eye, and much lighter in their form of construction. We are obliged to you for the compliment bestowed upon our Magazine, and hope you will renew your effort to produce a desirable drawing for publication.

—, of Seneca Falls, N. Y.—Your drawing for close carriage is at hand. Its not being correctly drawn, accounts for its non appearance. The design is good, but the proportions are not what they should be.—You have our thanks for the interest you manifest in behalf of the Magazine. May we hear from you again.

A. R. N., of Miss.—We have never seen the Clinton buggy you refer to in yours of the 3d of Dec., and therefore cannot advise you as to its utility. We are informed that Mr. A. J. Gibson, of Clinton, Mass., is the inventor of this spring and coupling known as the Clinton Carriage, and for which he has obtained four distinct patents. We will probably illustrate this carriage in the Magazine very soon.

C. W. D., of Ohio.—Your plan for a shaft Coupling is received, and from what we can understand from the diagrams sent us, we are inclined to think that your spiral spring arrangement to prevent rattling, is subjected to many difficulties, which will render it impracticable. However, your method of connecting the shaft to the axle is good, but would not think it prudent to take any steps towards procuring a patent, for should you succeed in such an attempt, it would not embrace a sufficient amount of importance to make it any object whatever to traffic therewith.

P. & Co., of Ia.—Your mode of rimming wheels is certainly new, at least to us, and the only objection we see in the way of its perfect application, is the square tenon and mortise, which latter does not penetrate but half way through the rim, which would have a tendency in a short time to cause the wheel to become rim bound. Your machinery for the work is of course patentable.

R. E. & Bro's., of Mass.—We do not see why Sprout's Springs will not work equally well to a hack of as heavy dimensions, as you describe, as to a light vehicle. Don't think you will be running any risk in applying them, but on the other hand are confident that they will render entire satisfaction to your customer. Messrs. Sprout, Burrows & Co. have now in constant use a heavy lumber wagon with their Springs attached, on which they have informed us, from seventeen to eighteen hundred weight has frequently been carried, and still retain an easy motion.

S. T., of C. W.—You must exercise your own judgment as to the propriety of purchasing the right of the Murgartroyd patent suspension Buggy. It is not wisdom under all circumstances to be influenced by what your neighbors do. They may be acted upon by the impulse of the moment, and it is our belief that if you keep cool for a short season, and at the same time become a close observer in the matter, you will find that those who so suddenly and eagerly embraced the Murgartroyd suspension doctrine, will abandon it in disgust. Indeed many are already heard to exclaim (with an old writer respecting ancient Jerusalem,) "Behold, we can find no good in thee."

P. P. S., of Ky.—We have never heard any complaints whatever, made of the bolts manufactured by Mr. S. T. J. Coleman, of Cincinnati, and so far as we know, they have in all cases rendered entire satisfaction.

A. R. & S., of Mich.—In the first place you are mistaken as to such a wheel as you describe, being patented, and in the second place, if it were, the patent would not relieve you from the difficulties attending all ordinary wheels with metallic hubs. If we mistake not, the hub is about the same as was used in our father's shops some ten years ago, and were soon thrown aside as useless trash. We would say to you "hands off," unless indeed they are fire proof.

W. D., of Tenn.—We are quite anxious to see a drawing of your improved Fifth Wheel, and hope it will reach us in time for insertion in the next No. of the Magazine. We would also be pleased to see a copy of your letters patent, if convenient.

P. W. & Son, of Pa.—We approve of your method of bending oak and hickory, and if you will have the kindness to furnish an article on the subject, we will take pleasure in presenting it to our readers.

J. & D., of Conn.—We cannot answer your inquiry without first seeing your productions; but will advise our agent, Mr. Terrill to call on you when in your city. Any arrangements entered into by him on our part will be satisfactory.

C. J., of N. J.—We are much pleased with your improvement in Stump Joints, and will bespeak for you a ready sale. In our opinion, it is far superior to the one that has been so long in use.

J. N., of Conn.—Your new style of wood dash, in our estimation is quite an improvement, and shall, at the earliest opportunity have a place in the drawing department of the Magazine. Let us hear from you as often as you can make it convenient. We can hardly think you are a new hand with the pencil.

BRONXVILLE AXLE WORKS.—We would call the attention of our readers to the advertisement of Mr. A. E. Smith, Axle Manufacturer, of Bronxville, N. Y., who is perhaps the most extensive maker of axles in that part of the country. In our next we will endeavor to give an illustration of this factory, which of itself will be interesting to our readers, as it is the most extensive of the kind we have ever seen.

ANOTHER PATENT WHEEL.—Messrs. Clark & Grey, of Bridgeport, Conn., obtained some few months ago, letters patent for an improvement in the construction of wheels, of which we are promised an illustration, and if received in time, it shall appear in our next. We have seen one of the wheels, and like the appearance of them so well, that we have ordered a sett, which we shall apply to one of our carriages.

SAUNDERS' & STEVENSON'S PATENT CARRIAGE SHAFT FASTENER.—Mr. W. H. Saunders, (axle manufacturer,) Hastings, on the Hudson, N. Y., and Messrs. Miner & Stevenson, (coach-makers,) Broadway, N. Y., are the inventors of the most simple, yet ingenious and complete shaft coupling (on the elastic principle,) that we have ever seen. Illustration and further particulars will be given in some future No. of the Magazine.

STEAM CARRIAGE.—Mr. Fisher, of N. Y., has promised us an illustration and an explanation of his steam carriage, which shall appear soon.

IMPORTANT IMPROVEMENTS IN THE OMNIBUS.—A patent has lately been granted to a Company in New York, for various improvements of some considerable importance in omnibusses, which will be illustrated soon.

OUR REGISTER, OR AN IMPORTANT SYSTEM FOR SECURING A SITUATION AND OF OBTAINING HANDS.

Proprietors in our department are often in need of help, and are frequently put to great expense, inconvenience, and loss of time in obtaining them, and there are hundreds of journeymen who are at times in want of situations, and many of them are compelled to waste their limited means in search of employment.

A great number of our subscribers have lately inquired of us whether we could not establish some system through which all such wants might be immediately supplied, and at the same time obviate the trouble above referred to. Now that such a system would be of vast importance and highly beneficial to the craft, will be universally admitted, and after a due consideration of the subject, we are induced to adopt the following plan, by which both proprietor and journeyman will be equally benefitted.

Viz: All journeymen out of employment, or likely to be so in a short time, or such as are desirous of changing their location, can, immediately upon such conclusion, address a letter to this office, stating the same, and such other facts as they may see proper, with a reference to their present or previous employers, and their names (with date, &c.,) will be placed in a register kept expressly for that purpose; and all proprietors in want of hands will likewise address a letter to us, stating the kind of workman wanted, and all other particulars necessary, and by return mail the said party will receive a copy of all the names on our register (of that class wanted) with address, references, &c., when a correspondence can be opened with one or all of the names desired, and a workman immediately procured; and in case no workman of the class inquired after, is found in our register, the wants of such proprietor shall immediately be made known through the Magazine without additional charge; and all journeymen thus registered, as soon as a situation has been obtained, will advise us of such fact without delay, stating by whom they are employed, which item will be placed in the register in connection with their names, for future reference.

TERMS OF THE REGISTER.—All journeymen sending their names for the Register, will enclose 25 cents in postage stamps, and each proprietor is required to enclose \$1, for which he will receive a copy of the Register as above, or his wants advertised in the Magazine, so that in either case he shall be sure of hearing from the kind of workman wanted.

OUR DRAWING TABLE.

We have now secured the exclusive services of a carriage draughtsman, who, from his long experience and close application to the art, stands unequalled by any other of the same profession in this country. Having been engaged in all the principal European cities, and for the past year in the city of New York, he has acquired a knowledge of the various styles of carriages among the different nations, which but few possess, and consequently is capable of representing a greater variety of style in his designs than could otherwise be expected.

From our Drawing Table the craft can obtain a sketch of any peculiar design or fashion for a vehicle, which they may desire to have, aside from what they see illustrated in the Magazine. Almost every mail brings us an application from some part of the country, for a design of a certain kind of carriage, which is peculiarly adapted or limited to a certain purpose or a certain location, (and which peculiarity forbids its appearance in the Magazine.) One, for example, wishes a certain style of Band Wagon; another a design for a Peddler's Wagon for this or that purpose; another a Hearse; an odd kind of Coach; and others again, a design on a large scale, for a Factory, &c.; all of which can now be furnished at this Office, on the shortest notice, and on the most reasonable terms.

Drawings executed either plain or colored.

PLATE VII.

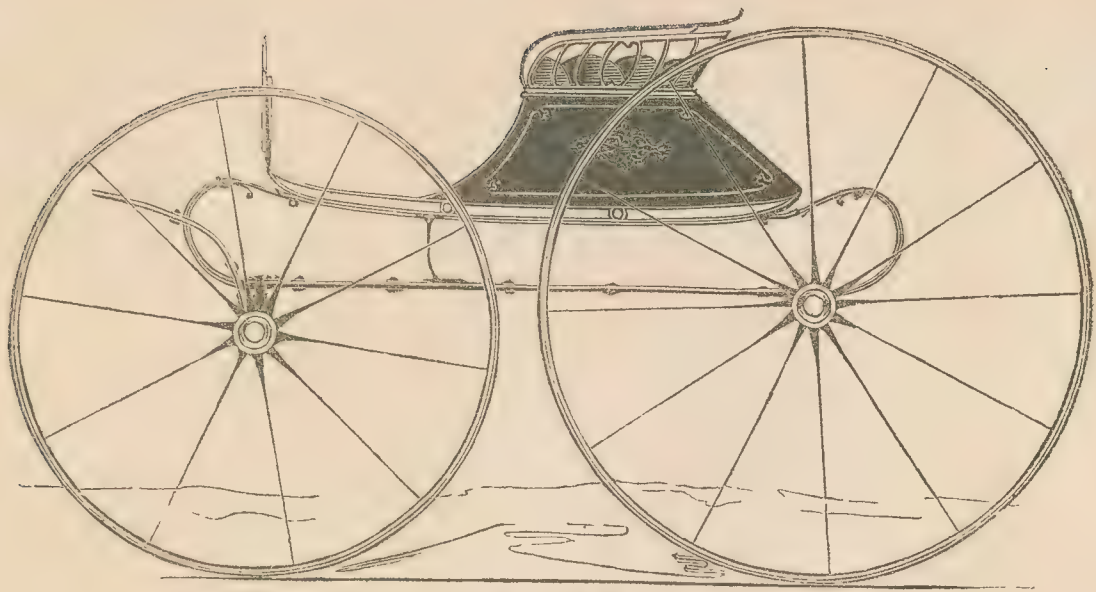


Fig. 11.

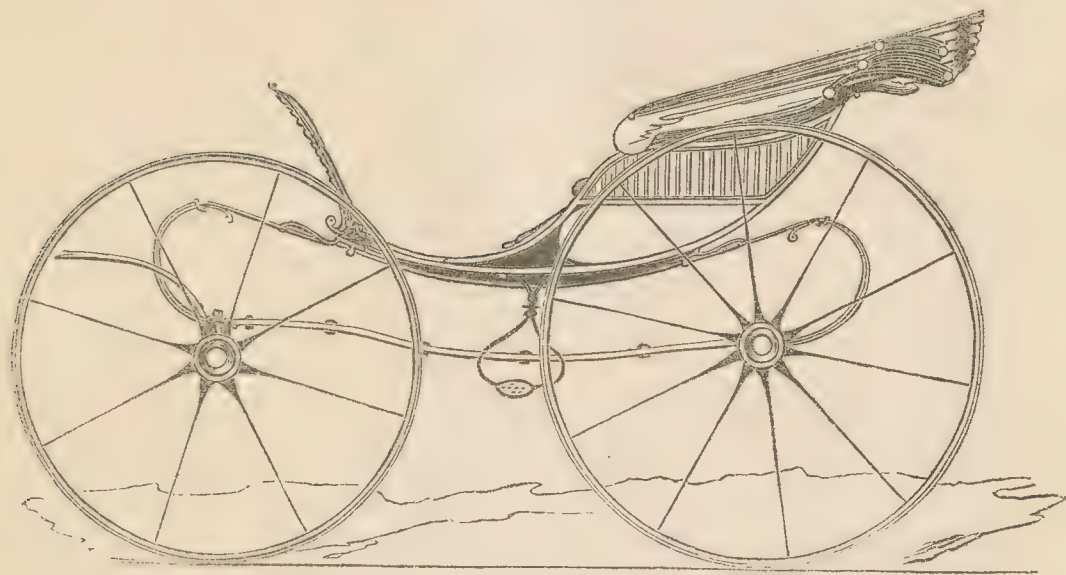


Fig. 12.



Fig. 13.

PLATE VIII.

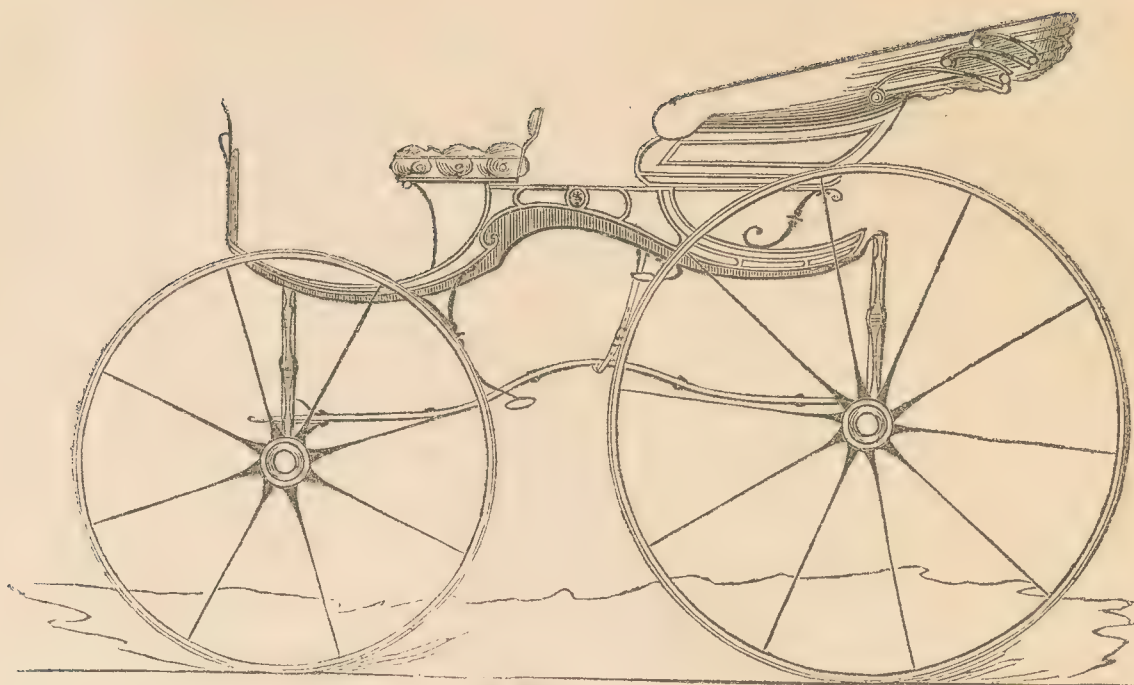


Fig 14.

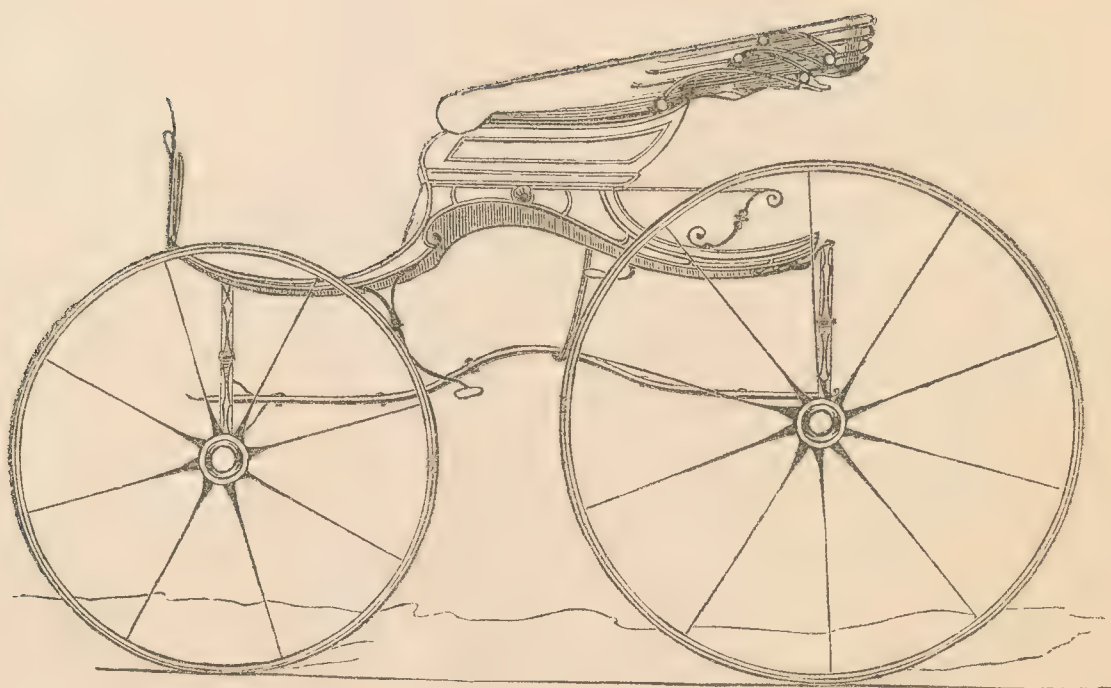


Fig. 15.

PLATE IX.

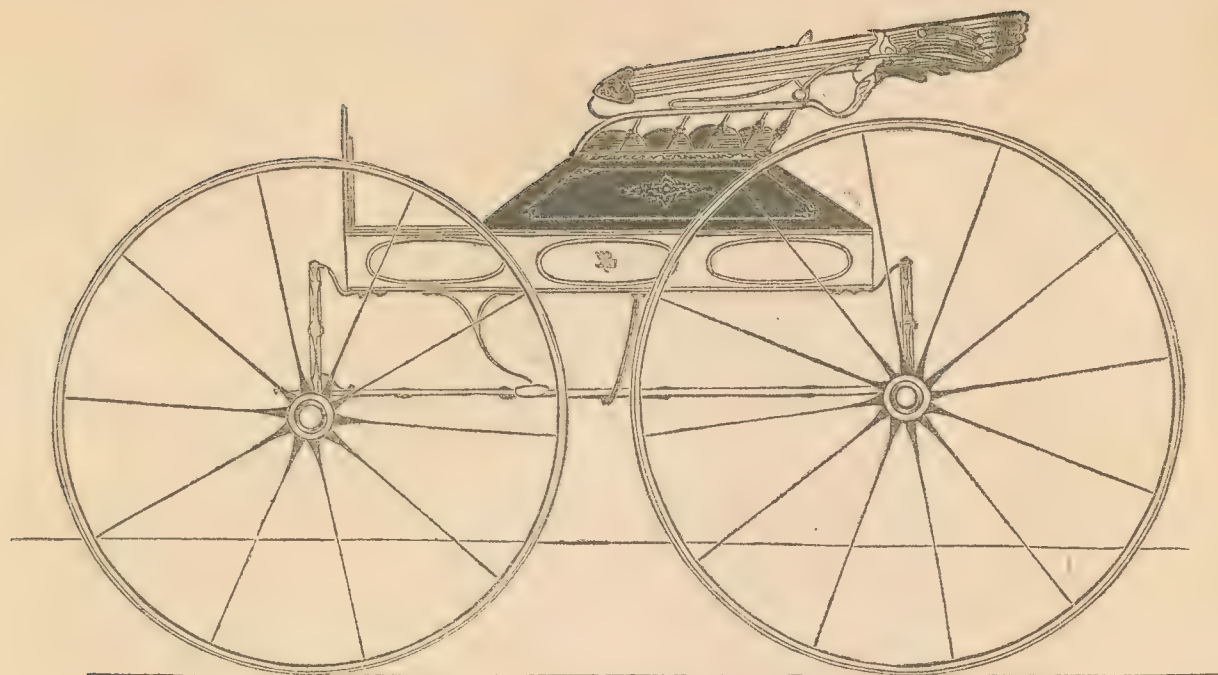


Fig. 16.

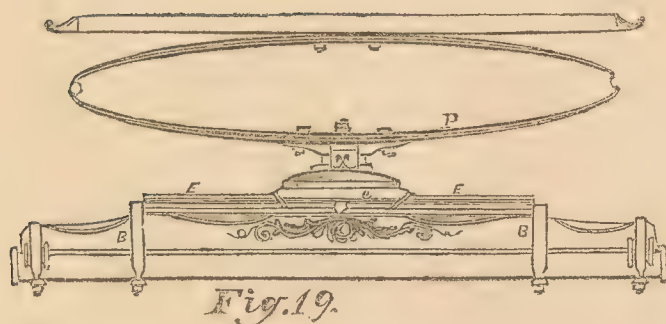
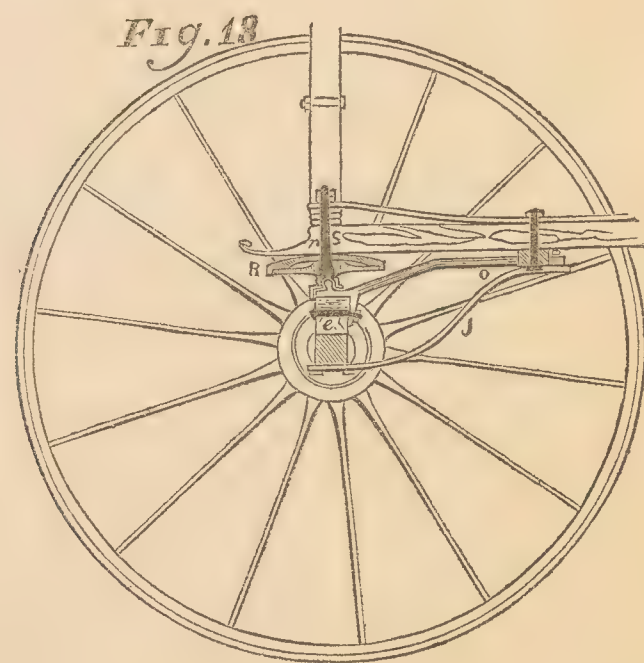
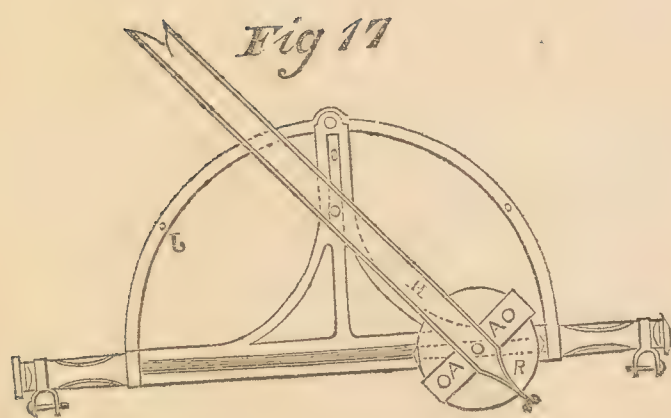


PLATE X.

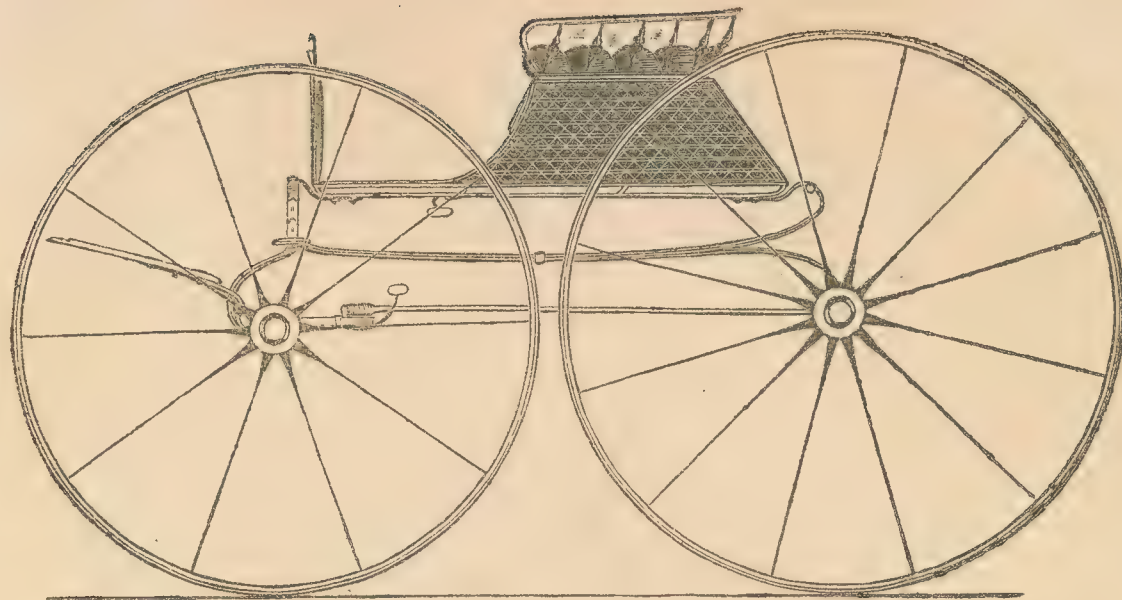


Fig. 20.

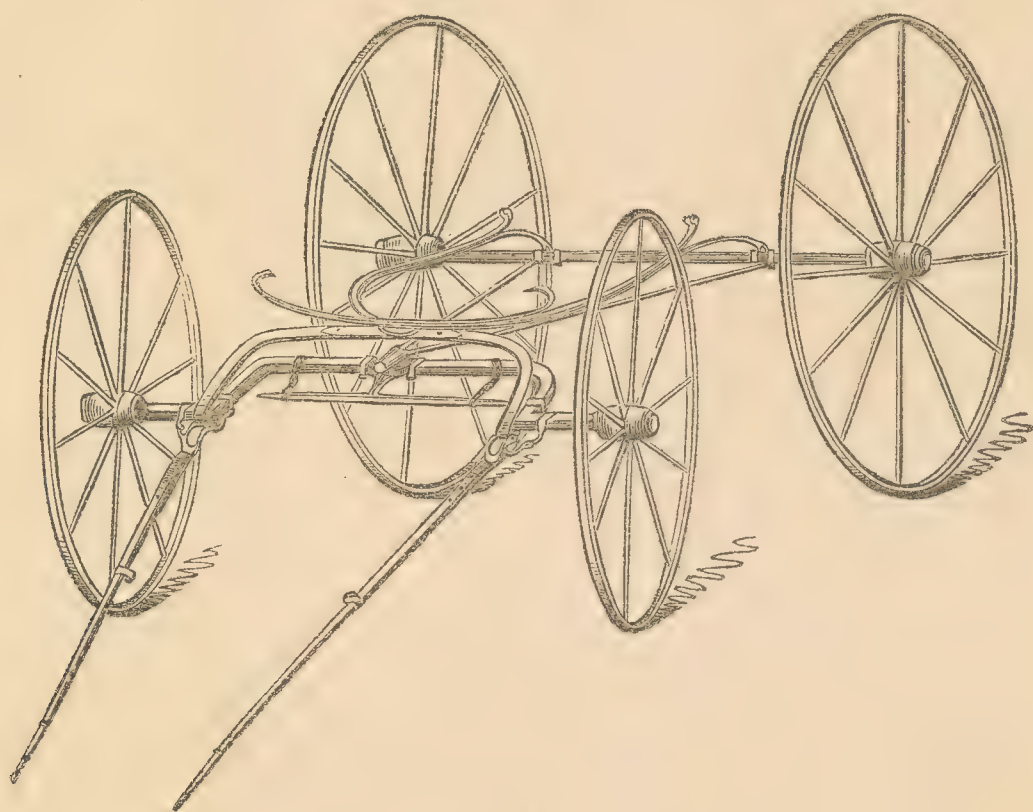
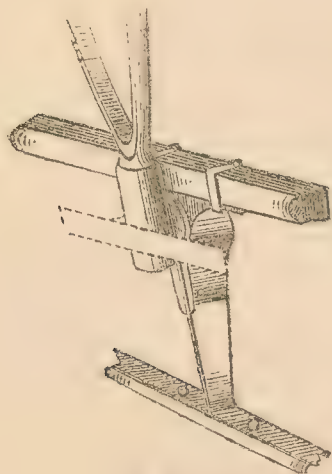


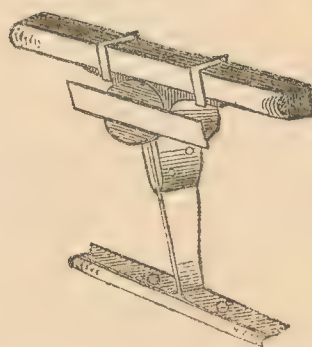
Fig. 21.



Fig. 22.—Shaft Coupling.



A & B Coupling.



C Coupling.

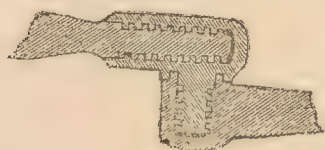


Fig. 23.—Section of A—Coupling No. 1.



Volume 2.--Number 3.]

March, 1856.

[E. W. Saladee, Editor and Proprietor.

TERMS:

Single subscription one year	- - - - -	\$3 00
Clubs of three	" - - - - -	8 00
" " six	" - - - - -	15 00
" " ten	" - - - - -	20 00

Payable invariable in advance.

All Clubs, however, must be sent to one address.

Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented stamped on the cover in gilt letters.

All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Office of the Coach Makers' Magazine, New York, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for N. York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

All advertisements for a shorter time than twelve months are charged 50 cts per line for each insertion; Payable in advance.

Fashions for March.

FIG.'s 11, 12, & 13.—BROWN'S PATENT.

On Plate 7 in this No. of the Magazine, we have illustrated Brown's Patent Spring, applied to three different styles of work, the bodies of which are in part entirely new, and of course applicable to any other carriage with different springs. While in Boston last January, we first saw a carriage with Brown's Patent C Spring, and on finding that the residence of the inventor was at Dorchester, but five miles distant, we made it our business to pay him a visit. On arriving at his place, we found him altogether a different person from what we expected, as we supposed him to be a *patent right man*, whose time was exclusively devoted to that business; but instead of this we find him a practical brother craftsman, and extensively engaged in the manufacture of carriages; and within the last two years he has built, he informs us, over two hundred bug-

gies, suspended on his patent springs, and which seemed quite reasonable, from the fact that everything about his factory in process of construction seemed designed for the application of those springs. While here we saw a number of these buggies, and among them one that had run over a year, the appearance of which fully convinced us that a carriage built upon this plan *can* be made *durable* as well as *light*. The carriage is constructed with two perches, (some with three,) the front extremities of which are mortised into a little bolster, or long headblock, and behind through the axle bed. The springs are made of steel, two and three leaves, the lower ends of which are clipped to the under side of the outer axle bolster and perches, as shown in the drawings, and the body suspended upon a thorough leather brace on each side.

There is one thing, however, which must be particularly observed in the application of these springs, and that is, to impart a proper strength to these perches, for if too weak, they will be subject to spring downward in the centre more than would be desirable when the weight comes to bear upon the springs; as will be seen, the natural tendency is, to draw the top extremities of the springs toward each other, and consequently the reaches are liable to a vibration in the centre, to which there is no objection, until such vibration becomes so great as to cause a rotary motion sufficient to alter the sett of the axle arms, when of course a serious imperfection would be created. This we have heard repeatedly as an objection to this patent, but can never be made to appear as such, if but a little care is exercised in the construction of these reaches. The advantages claimed by Mr. Brown for this improvement are, 1st—its simplicity of construction. 2d—Extraordinary lightness. 3d—durability. 4th—a superior steadiness of motion over the elliptic spring, no side vibration, and thus immediately recovers from any sudden shock, therefore making it superior to any other arrangement for fast driving. 5th—its simplicity of construction renders it void of all rattling, as there are no joints to create such an evil. 6th—its graceful appearance; the springs and their connection being extremely light and easy in form.

We found quite a number of the most influential men in Boston and vicinity who were using buggies with these springs, built by Mr. Brown, and in justice to him we must say, that in every instance they have rendered entire satisfaction, and not a single failure could we hear of.

The C spring was among the first class ever applied to pleasure carriages, so likewise the leather braces; consequently Mr. B. cannot claim the form of this spring as new, but he certainly can (and does) claim the arrangement, and his application of the same to light carriages and buggies, and for which he received letters patent dated Dec. 12th, 1854.

Where lightness is an object paramount to every other, like in the most of our large cities, this arrangement is no doubt a good one. Mr. Rogers and also Mr. Watson, of Philadelphia, have taken hold of it and mean to give it a trial, which of itself is a very decent recommendation for this patent.

Further information can be had by letter addressed to B. F. BROWN, Dorchester, Mass.

For Saladee's Magazine.

FIG.'S 14 & 15.—IMPROVED SLIDE SEAT CARRIAGE.

MR. EDITOR—*Sir*:—I am happy in saying that I have been a subscriber to the Coach-Makers' Magazine since its commencement, and in justice to its conductor, must confess, that I have been greatly benefitted thereby.

A sliding seat carriage, whereby it may be readily converted into a one or two seated conveyance, is certainly one which meets the approbation of a greater portion of the riding community, than almost any other; still there are objections to them, and the chief one of all, is, that in one of the two positions which it assumes, there is an appearance of clumsiness, and an apparent lack of proper design. To obviate this, some of your patrons have generously contributed designs to the Magazine, some of which were very good. Fig. 21 in April No., last vol., (of which I made several) suggested to me a new idea, and one which I consider, from a thorough trial, superior to any other slide seat I have ever before seen. My drawings, fig.'s 14 and 15 will fully and correctly represent it. I made one carriage of this kind, in which I did not permit the sliding bar on the body to extend back of the seat, and for the purpose of supporting the main seat when shoved back, I simply applied the standard, as shown in these drawings, which were so constructed that the bottoms rested in small sockets, (inserted in the top of the side to the body for that purpose,) and the top ends of the standards were secured to the seat by themselves, so that but when one seat is used, these standards are detached and thrown in the body (under the seat.) Thus no traces are left by which to detect the design as being for two seats, and indeed none but a practical workman can detect it. However, this last plan of supporting the seat is not quite so strong as to have the sliding bars to extend and permanently constructed to the standards, though I find it to answer a very good purpose.

A. N.

FIG. 16.—NEW YORK BUGGY WITH SQUARE BODY AND SHIFTING TOP.

Our draft presents to our patrons a style of buggy which is new, and which has been the past summer and fall very fashionable in this city. Whether they will take as well another season is very questionable, as they do not present to the eye that light appearance which has so long given the preference to the tub body, in the sight of pleasure seekers. On comparison, the reader will observe, that our draft differs very materially from the one given in the Feb. No., in having the sides of the body and the seat connected together with a leather boot, as is done with the tub body, and this boot is,—now that the pressed or embossed figure is gone out of fashion—almost invariably finished with a fancifully designed border and centre figure, stitched with white thread, as shown in our draft. These buggies are moulded off on the side pannel with prepared rattan or whitewood, in almost every variety of pattern, according to the fancy—oftentimes as we think, ludicrously enough; but probably our draft gives the most popular finish of all others. Perhaps it will not be out of place in this connection to advise our

patrons that leather, instead of cloth trimmings, are almost exclusively used for buggies; dashes all stand perpendicular—the back rails of seats arch from 2 to 3 in., which adds gracefulness and novelty to the vehicle when finished, and then we have presented to the reader about all the changes in style now calling for remark from us. We will only add to our report, that some manufacturers paint the oval in our draft with lake or imitations of oak, maple, &c., and the remaining portion of the pannel of black or brown color, thereby imparting a very pleasing and pretty appearance to the buggy when finished. The price of this description of buggy in New York is, when well made, from \$225 to 250. E. M. S.

For Saladee's Magazine.

DETROIT, Feb. 12th, 1856.

MR. C. W. SALADEE—*Dear Sir*:—permit us to give you an explanation of our Coupling. This Coupling consists of a flat bar I, which is attached to the top of the bed piece, C, fig.'s 18 and 19, on the top of which is attached a T shaped bar or rail, E, shown in the above named figures, the back part at right angles with said bar I, which is slotted, in which is the small slide D, fig.'s 17 and 18, through which passes small bolt S, to the top of reach, fig.'s 17 and 18, the slide E, which is slotted so as to fit the T shaped bar or rail E, on which it slides when in the act of turning, as plainly shown in fig. 17. On the top of said slide is attached the ordinary fifth wheel or circle; upon the top of said circle we place two standards, A A, as shown in fig. 17, between which passes the reach H, and upon which rests the front spring P, fig.'s 17 and 19. The coupling is attached to the axle by two clips, B B, and brace Y, the ends of which form the clip blocks under the axle. The centre of said brace is attached to the back end of the bar as shown in fig.'s 17 and 18; the bolt K, which passes through the slide E, with the head inside of the slot. By means of said bolt we are enabled to keep every thing firmly to its place, as shown in fig. 18.

The above description with drawings, is so easily to be seen or understood by every practical mechanic, that we think a further description unnecessary. The advantages we claim over all other couplings are the following: 1st—its great simplicity in its application, combined with the advantage of turning in a very short space, at the same time retaining all the weight or bearing continually on the axletree, thus preventing the body from tipping on either side, without any danger from upsetting in the act of turning, and without any liability to get out of repair, and it leaves the axle much stronger in the centre, lessening its tendency to break or spring, as holes in the axles are entirely obviated. It lessens the cost of construction of the carriage more than the article itself will cost; it draws from two points, consequently it does not depend on a single bolt for its safety. It retains entire control of the carriage, avoiding all lateral motion so objectionable in the Everett Coupling; its small, simple, and neat appearance, combined with its utility, must be admired by all; knowing that the community has so often been bored with useless patent rights, we do not ask any one to purchase rights of us, but have made arrangements to fill all orders that we may receive, at a cost not exceeding three or four dollars per sett. In using this coupling, more than its cost is saved; the head block is not used, which is at least worth 40 or 50 cts.; our carriage ironer irons the carriage in one day less when he uses this coupling, which for him and helper is \$3:00, besides the amount of iron and coal, which would be at least \$1:25; now there is to say \$3:25 paid out for coupling, and \$4:75 saved in construction; net gain for using our coupling of \$1:50 in cost of the carriage, and makes the carriage worth from \$10 to \$15 more. Having pointed out some of the advantages of our coupling over all others, we shall now trust to a discriminating public to decide whether they are useful or not, and shall be willing to abide the result. All orders must be addressed to A. & T. Choep, Detroit, Mich. Any further communications with reference to them will be promptly answered by return mail.

A. & T. CHOPE.

THE CLINTON CARRIAGE.

Plate 10 contains the illustration of the Clinton carriage referred to in our last. That we may give a correct idea as to what is claimed for this invention, we give below a quotation from a circular issued by the patentee:

"A vehicle invented by A. J. Gibson, and for which four dis-

tinect patents was obtained, which he feels confident will commend itself to all lovers of easy riding and handsome carriages. Among the advantages possessed by this carriage over any other in use, may be mentioned the following: 1st. It can be turned with perfect ease and safety within a circle of a diameter of five feet, which is an important advantage in cities. 2d. The horse is brought nearer to his work, and consequently does it with greater ease, as the attachment is in the rear of the wheels. 3d. The springs are so arranged that one or four persons may ride with the same ease, and in either case the motion is more pleasant and regular. 4th. Getting in and out of the vehicle is rendered much easier and more pleasant, as it can be done without touching a wheel. 5th. It is much less liable to disarrangement, and safer than the ordinary gearing; besides doing away with the rattle and clatter of those now in use. 6th. The forward pair of wheels being placed forward of their usual position, by giving the axle a bent form, allows the horse to be placed back between the wheels, making the team when harnessed, very much shorter, and preserving all lateral motion of the thills upon the horse, as either wheel, passing over obstructions, the blow is divided equally among the four.

The thills are attached independent of each other, without a cross-bar, by means of broad iron hinges; thereby whipping on the saddle, caused by the cross-bar, as the wheels are finding uneven surfaces, is entirely avoided. By this means of attachment, there is no draught brought upon the thills, consequently they will remain firm, safe and durable, and may be turned up when not in use, and packed away closely. Dispensing with the cross-bar in the thills, allows the whiffletree to be placed back to the axle and attached to a threaded coupling on the forward axle by means of a steel spring. The nature of the threaded coupling consists in the employment of a cylindrical bar of iron having a threaded bolt projecting downward therefrom, and working in a threaded cylinder clasped to the forward axle. The said threaded cylinder projects above the forward axle and turns in a hollow chamber formed in the cylindrical bar above the threaded part of the bolt. The rods or perches which are used to connect the forward with the hind axle, are brought to the centre, and formed into one rod, having a thread cut on the end thereof, and which works in a threaded chamber cut horizontally in the cylindrical bar, before mentioned.

The advantages gained by this manner of connecting the forward with the rear axle are, that it makes a durable, permanent, and secure fastening;—durable because the threaded bolt having a long, continued and equal bearing, brings a large amount of surface into action which is not liable to be worn, as all dust and dirt is excluded from the threaded cylinder, by means of the upper part of the cylinder projecting into and filling the hollow chamber before mentioned. It is also made permanent and secure by giving the bolt a sufficient length to keep the axle in a steady and upright position, at the same time allowing the vehicle to turn completely round without releasing the bolt from the cylinder but a fractional part of its length.

Another and very important point gained in this invention is, that in turning, the danger of upsetting is much less, as the hind wheels are compelled to pass around curves, by the leverage of bent axle. The dress of the occupants coming in contact with the wheels, is entirely avoided. These are a few only of the prominent advantages claimed for the valuable improvements; it is needless to enumerate further, as the inventor relies more upon his carriage after an examination, developing its numerous excellencies, than upon any assertion of his own. The subscriber offers for sale State, County, and Town rights as follows:

New York, New Jersey, Illinois, Rhode Island, Maryland, California, Mississippi, Michigan, Wisconsin, Iowa, Georgia, Arkansas, Texas, Florida and District of Columbia, Oregon, Minnesota, Utah and Kansas territories;—also, Worcester, Essex, Suffolk, Bristol, Plymouth, Franklin, and Nantucket counties in Massachusetts.—The balance of the States, Counties and Towns can be obtained on application to E. W. Goodale, Clinton, Mass.; or N. M. Goodale, Monson, Mass.

A. J. GIBSON.
Clinton, Mass."

Fig. 20, side elevation; fig. 21, front view of carriage; body detached, showing the arrangement of the springs, the curve of the front axle, and the attachment of the coupling to the same, also, the connection of the whiffletree and shafts.

Messrs. Goodale & Gibson are very extensively engaged in the manufacture of these couplings and shaft connections, and are now prepared to furnish the craft with the same, and on such terms that cannot fail to please the purchaser.

We have personally inspected this carriage, and we look upon the coupling and shaft connection as an improvement worthy the consideration of every carriage manufacturer. These parts of this patent are applicable to every description of carriages where a perch is used. The perfect manner in which these parts are finished and fitted to each other, certainly reflects great credit on Mr. Goodale as a scientific machinist. Prices for these couplings, &c., we presume will be given in our next.

A—Coupling No. 1 & 2, with whiffletree spring attached, designed for end scroll springs on common axles, or Gibson's patent bent axle. (No. 1 Coupling is the size for a one-horse light carriage.) B—Coupling No 1 & 2, with whiffletree spring attached, designed for elliptic springs, or as shown by dotted lines, or to receive a wooden bar for side springs, with wood or iron reaches. C—Coupling No. 1, with whiffletree spring attached, designed for whole elliptic or side springs, with wood reaches, with or without the whiffletree spring. Further information can be obtained by letter, addressed as above.

COMMUNICATIONS.

For Saladee's Magazine.

AXLETREES.

(Continued from page 15.)

Now that we have concluded how much taper to give an axle arm, the next thing to be done and correctly understood, and correctly done is,

THE SETTING OF AXLE ARMS.

There are a score or more of collateral considerations rushing into the mind of the intelligent coach-maker, when he turns his attention to giving the set to an axle arm. Why is it necessary to set axle arms at all? Were axle arms straight like fig. 1 it would not be necessary to set them; but, since they are tapering, there is a constant tendency of the wheel to work towards the small end, and the more obtuse or blunt this taper is, the greater the tendency to work toward the small end of the arm. The idea then is, to contract this tendency to run towards the nut, by altering the position of the nut, so that a wheel, when a vehicle is running on a level track will not run against either the nut or shoulder of the arm. If a wheel runs against either the nut or the shoulder, the draft is usually increased. If we give an arm a little too much set, we only increase the difficulty which we thought to obviate, and we had better give not quite enough set than a little too much; because, if an arm be set not quite enough, that vehicle will run more easily than if the arms were set too much. Were the spokes of every wheel standing in a position to give, always, just such an angle to the dish of wheels, according to their respective diameters, and the taper of all axles made in accordance with the dish, we should then have some starting point from which to calculate, with no little mechanical certainty, in giving the most correct set to any axle arm.

But, since there is such a vast difference in the dish of wheels, and in the taper of the arms, and length of arms, a workman needs to exercise a great deal of wisdom and judgment in setting arms. We cannot adopt one rule which will be correct under all circumstances for iron arms, and for wooden ones also. When we meet with wheels and arms, in the construction of which every correct principle of mechanics is defied and set at naught, (and we often meet with them,) one must understand what is right and what would be, or is wrong; and what will have a tendency to rectify what is wrong.

The main idea to be kept constantly before the mind in setting arms is, to have the underside of the arms on a line with each other, and the wheels standing on a plumb spoke, and set enough forward to keep from running against the nut. Now, we will adopt some

point for a standard; and this, with myself is, wheels that are about $4\frac{1}{2}$ feet in diameter, require about $1\frac{1}{2}$ inches dish; this will probably give the strongest shape,) and with the corresponding taper of the arm, and 1 foot in length, between the nut and shoulder, $\frac{1}{8}$ of an inch is as nearly the correct set as may be. There we have some starting point, and after the most mature deliberation and carefully conducted experiments, and close and extensive observations, I have chosen this rule as a very correct standard in setting axle arms. Now, if we shorten the arms to 9 inches, for instance, with the same dish of wheels, and consequently same taper of the arms, the correct and corresponding set will be $\frac{3}{4}$ of $\frac{1}{8}$ of an inch, which equals $\frac{3}{32}$ of an inch. Again: $\frac{1}{2}$ foot in diameter with $1\frac{1}{2}$ in. dish; but the dish of the wheels now is from 3 to 4 inches, so that the spokes on the underside of the arm stand inclining towards the shoulder of the axle arm, and consequently the tendency is, to work the wheel towards the shoulder. If, now, these arms required $\frac{1}{8}$ of an inch set, when their wheels were standing on a plumb spoke, with the inclination that 3 or 4 inches dish would give them, the arms would need but about one half this set, or $\frac{1}{16}$ of an inch. On the contrary, the wheels are not dishing enough for the taper of the arms; and the spokes on the underside of the arms incline towards the nut. Here we have a two fold tendency to contract; and we must make calculations in setting, for the taper of the arms, and for the inclination of the spokes towards the nut. Some coach makers give the axle arms no set forward, but contract the tendency of wheels to work towards the nuts, by giving the arms a pitch downwards, from the right line on the underside, or a gambrel shape, like Fig. 2. Some give an ordinary arm of 8 or 9 inches long, a pitch downwards of $\frac{1}{8}$ to $\frac{1}{4}$ of an inch. It cannot be denied, that a deflection of $\frac{1}{8}$ of an inch will prevent a wheel from running too much against the nut without any set forward; and when a deflection is given to axle arms and then a set forward, they have a double set; and, when they have a deflection $\frac{1}{8}$, $\frac{3}{8}$ or $\frac{1}{2}$, they have a set which no principle in mechanics, nor skillful carriage-maker in all coachdom will justify. Such vehicles cannot run easily. If the arms and boxes are fitted up ever so neatly, there will be so much unnecessary friction that they cannot run easily; and when we compare the draft of such a vehicle with one of the same materials and the same weight that is made correctly, the difference is almost like drawing a sleigh on the bare ground, and on the ice.

There is another thing that should have no little influence in determining how much set to give an arm; and that is, the width of the rim. Were the rims of the wheels so constructed that they would run upon a mere point, on a track: for instance, brought to an edge, the axle arms would need much more set forward than they do when the entire surface of the rims come in contact with the way. Were the width of the rims increased, so that they were as wide as the arms are long, with the ordinary taper of arms, the smallest measurable part of an inch, would be sufficient to keep the wheels from running too much against the nuts.

I may be allowed to say here, (pardon my egotism,) that I work a machine for moving buildings, a huge carriage, if you please. The large end of the axles are seven inches in diameter, and the width of the rims are fourteen inches each; and the sway bars or steering parts so arranged that the position of the wheels may be altered to run at any angle required, with the greatest precision; or they may be thrown or set in a binding position; or, in turning a building thirteen wheels will roll forward, and one backwards; or, any number may be made to revolve backwards or forwards, as may be desired, at the same time; and, when a large building is mounted upon this carriage, moving forward, it is quite interesting to see how much almost an unmeasurable part of an inch in cutting the wheels to run to the right or left, or in other words, altering the set of the arms, will affect the draft. I merely mention this fact to show what an influence setting the axle arms has on a grand scale, like that already mentioned. Could those carriage-makers who are great sticklers in regard to setting arms five times as much as is necessary, or who insist on making the front side of the axle arms on a straight line with each other, witness a few operations in cutting the wheels of a good machine for moving buildings, and see, exactly, how setting axles operates on a large scale, they would abandon at once the idea, that they ever knew anything about giving the correct set to axle arms.

I may be allowed to say further on this subject, that the axle arms in my moving machine are tapering, and that I am putting in

new axletrees like Fig. 1, without any set, or pitch downwards, with straight boxes, and straight bearings, and tapering only between the bearing surfaces. This is the correct shape for axle arms whose wheels are straight.

I have not space to pursue this subject further, in showing and exposing the errors in hanging wheels and setting arms, although I have not proved one half that I think would be profitable and edifying on this subject, and I will close this communication by giving a few thoughts on

THE TRACKING OF CARRIAGES.

"He mounts his Car—the coursers spring;
The Chariot marks the rolling ring:
Now, darting from the circling round,
Far in the distance, swift they bound,
Now, in hot haste, returning back,
His rumbling wheels mark the same track."—EDWARDS.

In making vehicles track with precision, there appears to be, to some carriage makers, a profound mystery, which they are utterly incompetent to unravel; and it cannot be denied that a great number of good workmen meet with difficulties in this part of carriage making, which they cannot account for; and which they are unable to remedy.

There are three things of importance which affect the tracking of a carriage, and to which one must have an eye in adjusting the running parts of the same, that it will track correctly, which are, the dish of the wheels, the position of the axle arms, and the length of the axletree between the shoulders.

Were the hubs of wheels all of one length, and mortised exactly alike, and the spokes of the forward wheels standing at the same angle of the spokes of the hind wheels, and the shape and position of the same, it is evident that the axletrees, between the shoulders must be the same, notwithstanding there might be less dish in the forward wheels than in the hind ones, providing they are made to stand on a plumb spoke, and the underside of the arms on a straight line with each other. When wheels receive the tire, the dish is unusually increased, and high wheels generally have the dish increased by the tire more than low ones. An increase of the dish in the hind wheels, and not a corresponding increase in the forward wheels, will, of course, vary the track. When it is desirable to have vehicles track with precision, the axletrees should not be fitted until the wheels have been ironed.

Then the dish of each wheel should be measured accurately, and, if there be no difference in the dish of the two hind wheels, and none in the dish of the two forward ones, it is easy to calculate for the length of the axletree between shoulders. If one hind wheel be more dishing than the other, and one forward wheel more dishing than the other, the two most dishing should be placed on the same side of the carriage. When the axle arms have a deflection, or a pitch downwards like Fig. 2, unless the dish in the forward and hind wheels is the same, the length of the axletrees between the shoulders must be different. When one has a perfect understanding of the manner of adjusting the running parts of a vehicle, so as to have the wheels track with precision, it is an easy matter when the dish of the wheels is given, and the position of the arms is known, to determine with the greatest desirable accuracy, the length of the axletrees between shoulders. But there is a rule, a simple and correct one, too, which is always correct under any circumstances; and both workers in wood and in iron may profit by it. It is as follows: If there be any difference in the dish of the hind wheels and any in the fore ones, let those that are most dishing be put on the same side of the vehicle. Now, make the hind axletrees of the desired length, and put the hind wheels on the arms, and measure the track exactly. Take off the hind wheels, and put the forward ones on the hind axletree, and measure the track; if it is not as wide as the track of the hind wheels by three-fourths of an inch, the forward axletree must be made three-fourths of an inch longer than the hind one, between shoulders. Sometimes the lengthening or shortening of one or the other of the axletrees must be done, all on one side of the centre of the axletree. For example: the wheels of a carriage all stand correctly and track precisely; now, place a wheel that is one inch more dishing on either of the arms, and in order to make it track, the shoulder, where this wheel is, must be just one inch nearer the centre of the axletree. If we shorten the axletree half an inch at each shoulder, one hind wheel will track just half an inch outside the forward wheels, and the other just half an inch inside of the same. As long as we keep wheels on

a plumb spoke, and the underside of the axle arms on a straight line with each other, there is no difficulty in making vehicles track. But, when the underside of wheels are thrown inward, toward each other, beyond a perpendicular position, or outward, as they usually are, by having the dish increased as in old wheels, the length of the axletrees from the centre to the shoulders must be increased or diminished, according to the increased amount of dish in different wheels. He who gives this subject a little intelligent consideration, will be able to understand the whole matter perfectly, so that if he meets with an instance where no two wheels are alike, there need be no hesitancy in adopting the wisest and surest course, in order to make the wheels track with precision. S. E. T.

Lake Ridge, Tomp's Co., N. Y.

For Saladee's Magazine.

RAMBLINGS.—NO. 7.

MR. SALADEE—*Dear Sir*:—To give you a full description of my travels since last I wrote you, would require more space than our already over-burdened pages would admit of; however, I will try to give you a hasty sketch of some of the many establishments I have had the pleasure of visiting the past month. The first halt I made after leaving your sanctum, was in the charming city of Mt. Vernon; I say charming, because I do not believe that the proud and beautiful State of Ohio can boast of another small city more beautifully situated, and grand in its general appearance than Mt. Vernon. Mr. Wm. Sanderson of this place operates quite extensively in the manufacture of carriages, and I found him quite ready to subscribe for ten copies, and this, too, without putting me to the trouble of canvassing in his factory. You will doubtless agree with me in predicting future prosperity in Mr. Sanderson's business, when I inform you that my interview with him was at his factory in the morning before day light, and at 7½ o'clock I was on my way rejoicing, bound for Salem. I had no trouble here in finding your worthy friend Mr. David Woodruff; as you introduced him to your readers through the Magazine one year ago, it remains only for me to remark, that he is still the same persevering and consequently *flourishing* manufacturer he was then. It is seldom that I come in contact with a brother chip who exhibits by his *personal* industry more of the go-a-headitiveness of the age than Mr. W. The old club of thirteen in this shop was very promptly renewed; I might also state that the productions of this factory compares well with the foremost manufactories in the East. Perhaps some of my old and much esteemed friends in the latter country may think it rather magnifying my story, thus to speak of western manufactories; so should I have thought, had I never seen the west; but after visiting establishments in this country, which employ from thirty to one hundred hands, and upwards, it becomes my duty to confess, (and I do it with an honest degree of pride,) that OHIO is no longer *out West*, but stands out prominently among the first manufacturing States of the Union. Ere I left Salem, I had the pleasure of making the acquaintance of Messrs. Dole, Silver, and Felch, who, as your readers are aware, are manufacturing Hub-Boring Machines, which impliment I also had the pleasure of inspecting, and do most cheerfully indorse all its proprietors claim for it; being the most rapid and easiest adjusted machine now in use; performing in a few minutes that, which in the ordinary way, would require the labor of one man for half a day.

From this place I started for Pittsburgh, when lo! and behold! the railroad track had disappeared, and not a car was seen to tell the tale of the woful mishap; however, there was nothing mysterious about it when I come to view the great body of snow that was spread all around and about me; and while finding myself thus hemmed in on every side, I could not but look toward Columbus with a sigh, as I thought of your 2:40 black idling away his time there in the city, when I could put him into such profitable employment if I had him here to jingle the bells. But there was no time for sighing, or giving way to gloomy reflections, for I must needs be moving, so I made tracks for a livery stable, and hired what *they* called a horse, which animal was duly attached to sleigh, and away we flew—no, I don't mean that; but we went away slow and easy, and occasionally I was compelled to get out for the purpose of ascertaining whether I was sporting a string of bells or not, as I could hardly raise speed enough to make a clear jingle, and you know how tedious it is to be sleighing, without a little noise to keep up the spirits. Well, as I was going to remark, in the course of human

and animal events, I reached the flourishing little town of Warren, where I found three large carriage establishments, which had already formed large clubs and sent them to your office; but notwithstanding this, I succeeded in adding quite a number more to the already extensive list of names; so you may set the craft in Warren down as not only well wishers for the future prosperity of the Magazine, but *doers* for the same. But again on the road, and by the close application of the long oats, I finally succeeded in reaching Salem, my starting point.

I next set out for Wellsville, at which place I arrived after a day's travel on the rail, just in time to save the depot, the roof of which was on fire; myself and two others succeeded in extinguishing the flames. I found Messrs. Rogers & Smith busily engaged in building carriages, and to whom the Magazine has proved a welcome visitor.

The Ohio River being closed, I was obliged to take a sleigh-stage in which I paid my fare through to Wheeling, Va., in company with several others. We crossed the river as Steubenville, in a small boat, and when fairly seated in a sleigh on the Virginia shore, we were very politely informed by an officious sort of character, (who afterwards proved to be the *proprietor* of a whisky shop) that we must pay an additional sum for the extra hazardous privilege of crossing the river, upon which we replied to our exalted informant, the whisky man, that we had paid our fare *through* to Wheeling, and therefore most respectfully declined opening any unnecessary avenues to our pocket books, upon which his honor informed us, that unless we should comply with the very reasonable demand on our pockets, he would deprive us of getting dinner, (as *his* house was the only place at which it could be obtained.) However, we expostulated with him, and reminded him of the fact that the walls of Sebastopol had caved in, and unless he would promptly furnish the dinner, we would take it upon *ourselves* to serve up the same in his own house, as we had no notion whatever to be thrown out of so great a luxury, so *he* caved in and *we* came off victorious, and in about five hours we landed at the point of our destination; the city of smoke, where it snows soot three hundred days in a year. After calling on our fraternity there, and leaving them the Magazine, I went to Washington, Pa., where I had the happiness of meeting some of my old shop mates in the factory of Messrs. S. B. & C. Hayes, who, by the way, are manufacturing on a grand scale, turning their own spokes, bending their own shafts, rims and bows, and manufacturing many other things that belong to the trade, which gives them a great advantage in a superior article of stock, over many others engaged in the business, and under the supervision of their able foreman, Mr. Perkins, their work represents a style and finish which will recommend itself any where.

From this place I started for Cumberland, about eight hours ride from Wheeling, but which, from the deep snow, took me forty-eight hours, where after having called on the brethren generally, I shaped my course for Washington city, where also I made it my business to call on the craft, and met with great success. However, I often met with the pass word, "*the House is not organized*, and we cannot pay the cash, as the hackmen do not pay their bills, neither do the representatives pay theirs;" consequently Washington is on the credit system. I remained in this city three days, and seeing that there was at least ten applications for every office, I concluded that my chance was slim, and having no one to intercede in my behalf, I shoved off and took passage for Philadelphia, leaving Baltimore and Wilmington for a future visit. Having been here but a short time, I must retain the gossip of this city for a my next letter; however, I cannot close without making a passing notice of your old and worthy friend, Mr. Wm. D. Rogers, who is certainly one of the most agreeable and gentlemanly proprietors I have ever met with; his establishment was particularly noticed in the June No. Magazine, 1855. I had the pleasure of visiting every department of this factory, in company with Mr. R., and from my knowledge of the business, I am not backward in saying, that he has indeed a model shop. In this factory I found that the Magazine was an old acquaintance among the journeymen, as well as the proprietor, as many of them were subscribers the past year, and for the present volume I received twenty-two subscribers, which speaks well for the Magazine in high places. There are several other large shops in this city not yet visited, and therefore must be remembered in my next.

Yours, truly, A. T.

For Saladee's Magazine.

COACH-MAKERS AND THEIR JOURNAL.

MR. SALADEE—*Dear Sir*:—Having been invited to the columns of your worthy Journal through your general agent, Mr. Terrill, I herewith offer my first contribution, and should it meet your approbation, let it appear in the Magazine.

I have thought proper in this to offer a few suggestions relative to the position of this periodical, and the interest of that intelligent class of our countrymen which it represents. I have no disposition to inflate with laudatory remarks; but plain facts speak for themselves. No Journal of this class has, as yet, struck upon so fair and free a platform as the one occupied by this Magazine; in fact, few of the mechanical branches have the honor of sustaining an organ of their own, and such as do, have been cursed rather than benefited by them, because of their aristocratic or central tendency. *Name and locality* are apt to usurp the place of *reason and true merit*. For instance, the tailor has been dwindled by his fashion plates, to the mere "ninth part of a man;" boldness of design and originality of conception; what are they to him? Should he originate a more tasteful or economical design than those dealt out by the Kings of Fashion in New York or Paris, what would it avail? With his mind fettered and handcuffed, and his godlike conception palsied, we behold him reduced to the pitiabie condition of a mere imitator. Why all this? Is not London, Berlin, Petersburg, or in fact any city or town of the States just as competent to establish and regulate its fashions as Paris? Certainly each community or individual has tastes commensurate with their wants. As a general thing, individual and sectional tastes and adaptations are too little respected, and mechanical creeds and authorities crush out the kindling embers of Genius.

Thus the progress of Science and Mechanical Art has been continually impeded. In no city on the face of the globe is there more latitude for the display of individual taste than in Paris. Her very boldness has eclipsed the civilized world, yet the glory of France has become the shame of her neighbors. Superior talent, genius and taste are as apt to be the offspring of the hamlet as the metropolis; but the world has so long been dictated by authorities, that original principles are becoming obsolete. We have reason to regret this, for a nation that lacks an independent standard of taste, lacks a mechanical nationality. And if that taste is not the result of the independent action of all its parts, it is not Republican in its character.

For Europeans, who have ever been trained to consider passivity a cardinal virtue, there is some excuse, though they should consider all law, fashion or theology at fault, which lacked the authoritative stamp of some metropolis. But it is not consistent for American mechanics to regard any particular point or individual as the pole star of Fashion. They should receive truthful and reasonable suggestions from any source, but retain their own individuality at all hazards; each considering himself the architect of his own fortune, and as an equally responsible and important member of that great mechanical confederacy, which with proper care is destined to command the admiration and respect of the world.

The editor of this Magazine has done all that can be done to preserve it from those vascilating and tyrannizing extremes, which has ever proved the blight of mechanical literature. But its fate and character depends upon the reader and correspondent, as well as editor. If they would make it a true mirror of the carriage making interests throughout the States, they must contribute useful matter to its columns, and thus prevent its becoming a mere fashion plate. If the reverse, each must wait some noted man in some large town, and they in turn for some one more competent, until the editor is forced to employ regularly paid contributors, and my word for it, they will soon find themselves string led by theorizing vagabonds, who possess more impudence than brains.

To conclude, I must congratulate my brethren of the craft upon the facility now afforded for the advancement of our literary and mechanical interest. I hope that the liberality of its conductor, and the freedom of its columns may be duly appreciated, and that its readers may avoid selfishness in both giving and receiving through its columns. Every master workman should make it a matter of principle to not only take a copy, but interest himself in its behalf generally. Borrowing a paper of this stamp, is too mean to speak of. Of course no liberal minded mechanic could have a face to apply for the loan of one. More anon. M. G. T.

Warren, Ohio.

For Saladee's Magazine.

SOMETHING ABOUT SHAFT FASTENERS.

C. W. SALADEE, ESQ.—*Dear Sir*:—In the January No. of your valuable journal, Mr. A. E. Smith, the inventor of a new shaft coupling, speaks of my Elastic Shaft Fastener thus: "But as each block of india rubber is hollowed out on the face, to fit the rounded end of the shaft or thill, it will seriously impede the up and down motion of the horse, and the passage of the carriage over irregularities."

This, sir, is such a wonderful discovery, it will utterly confound yourself and hundreds of others who are using my shaft fastener; that you could not discern such serious impediment or resistance from the india rubber blocks, in raising the shafts by hand. So practical a man as our friend Smith, should not have allowed himself or his attorney to make such an unqualified assertion, without knowing the fact, as one minute's trial would have convinced him of the entire falseness of their idea.

The fact is, with the leverage of the shafts, the clip joint works under no perceptible restraint, with my patent fastener attached. I have reduced my price to the trade, to \$9 per doz. I am sir,

Very truly yours,

W. S. CHAPMAN.

Cincinnati, Feb. 7, 1856.

[We have been using Chapman's elastic blocks to one of our carriages for some length of time, and in justice to the inventor, we must say, that we have never discovered the imperfection which Mr. Smith has referred to. If such an evil does really exist in the use of Chapman's Shaft Fastener, we have had every opportunity to observe it, as the carriage referred to we are using more or less every day. However, we are of the opinion that the material of which those blocks are composed, would bear a very desirable improvement, viz: to prevent them from bursting in frosty weather, when in the act of raising the shafts up against the dash, as is commonly done when the vehicle is run into the carriage house. Among livery men this is practiced almost universally, and from that source we have heard some considerable complaint, and those on our own carriage also show the propriety of such an improvement in the blocks, which no doubt can be easily effected, if Mr. Chapman will but lay the matter before the manufacturers of the same, as we think they are capable of making composition that will render entire satisfaction, both in summer and winter.—Ed.]

EDITORS COACH-MAKERS' MAGAZINE:—As I believe you hold yourselves in readiness to answer questions in our line of business, I take the liberty of asking one. I have some English varnish which I can do nothing with; it goes on well and looks fine at first, but as it dries it falls or separates, leaving a part of the surface bare, which spoils it, &c.

J. GRAHAM.

We answer, that English (nor indeed any other) varnish should never be spread on paint in a cold shop; the temperature should be at least 65 degrees, and the varnish should be warmed, if the weather has previously been cold, and besides, try and select a dry day for putting it on. One very great fault with many painters is, they are not careful to rub down sufficiently the previous coat. Varnishing (unless a fire in cold weather is kept up late,) should be done in the early part of the day, and English should never be mixed with any other, nor spread on any other in this country than American, as is generally the practice in New York city.

E. M. S.

For Saladee's Magazine.

WHO WILL ANSWER?

MR. SALADEE:—Can you or any of your correspondents tell what time of the year is best for cutting timber for wagon or carriage work? It is a subject upon which I have heard a good deal of discussion, but without any satisfactory conclusion. As the subject is important to the craft, I have no doubt many of your readers would be glad to get information.

B. G. D.

Painting Department.

For the Coach-Makers' Magazine.

PAINTING—BY A PAINTER.—NO. 3.

Continued from page 18.

VERMILLION—CHINESE.

This color forms the most dazzling and brilliant of all the "reds." It was a few years ago the favorite color used on all such light work as trotting buggies, sulkies, &c., but is almost discarded now. It is a very durable color when the genuine material is used, the Chinese, but of the thousands of bbls that are annually sold under the name of "Chinese Vermillion," probably not one-hundredth part is pure, but are adulterated with mixtures of whiting, red lead, &c. It is a very delicate color, and when mixing it the stone should be perfectly clean. When mixed with oil, with sugar of lead as drier, it works beautiful, and there is hardly any other color that goes farther or wears better. In order to ascertain whether the vermilion is perfectly pure, place a small portion on a piece of red hot iron, and should there be no adulteration it will entirely evaporate; should there be a slight residue, it is a sure indication of red lead. If whiting has been used, it will leave a light flesh colored earth on the iron.

VERMILLION—AMERICAN.

This color forms the nearest approach to the Chinese vermilion, of any other red in use in this country, although the material called "Cinnabar" is a trifle brighter. The latter article, on account of its poisonous nature, is very seldom used. Cinnabar is the one from which the pure vermilion is prepared; it is found in large quantities in the quicksilver mines in Europe. Sometimes the miners strike a vein of it near the surface, and when this is the case, the mines are generally deserted, as the presence of large quantities is a pretty sure indication of the absence of quicksilver. American vermilion is prepared by pulverizing the Cinnabar ore and subjecting it to an intense heat, adding two parts of sulphur to three of the ore; when cold, the mixture is again pulverized and mixed with about one-half of its weight of prepared Spanish white. The sulphur it is found has the effect of neutralizing the poisonous exhalations of the Cinnabar; it is a very handsome color, and makes a very good imitation of the Chinese Vermillion; but it requires to be used very soon after mixing, as the color settles to the bottom in a few hours, and it is impossible to thoroughly mix it again unless it is ground over.

RED LEAD.

This color, though seldom used by the carriage-painter, unless in combination with other colors, is, however, a valuable auxiliary in the paint shop. As it is powerful drier, a very small quantity being sufficient to dry color even mixed with oil, some use it in making putty, and others use it as a drier in red colors, but the principal use that is made of it is in the manufacture of japan, as it forms an ingredient in every species of japan that is made. It is made by subjecting the common lead to a very strong heat in a shallow pan, stirring it continually with an iron rake until it assumes a pale red; it is then left to gradually cool; then pulverized and heated again, but not so hot as at first, as by raising the heat too high, causes the lead to fuse and become unfit for use. It is a very difficult color to use when mixed by itself, and from the drying nature of it, requires to be entirely mixed with oil, as it will not mix with varnish, but causes the work to pit and pock as if the surface below it had been greased.

INDIAN RED

Or "Crocus" as it was formerly termed, has now become a color much used. Objections had always been raised to the use of it as a color, but a thorough test of it has clearly proved that the vegetable matter contained in it has no effect as to its durability. It is most undoubtedly the strongest red in use, having more body than any other. It is made by pulverizing the bulbs of the Crocus plant, (the species that abound on the shores of the inland lakes in the West India islands,) which are then thoroughly saturated with sub carbonate of potash, and left to dry in the sun. It is much used as an ingredient in mixing browns.

CLARET OR LAKE.

The best article of lake is prepared from Cochineal, but is seldom used in carriage painting, as it is too expensive for general use. That which is most generally used, is made from madder. Madder lakes, however, are very durable, and retain their brilliancy longer than the previous. It is considered the best test of a good workman to be able to paint a good "lake," as it is a very difficult color to manage, being very liable to streak or appear lighter in some places than others; but if the proper care is taken in getting up the surface or ground work, it is as easy to manage as the commonest brown, viz: to paint a dark brown beneath, (if it is intended to be of a bright color,) or if to be of a dark shade, to use Prussian blue, taking care that they are laid on evenly and smooth. The addition of a small quantity of varnish in the preparatory coats will be a sure prevention of any streaked appearance in the work. When mixing these colors a small quantity should always be used, as otherwise it is almost an impossibility to produce a clear, rich color.

ROSE PINK

Is the color that is in almost general use in this country. In the list of "clarets" it is the cheapest and easiest to work, and requires but little experience to enable any person to use it. It is seldom that more than two coats are required to make the requisite color. This article is prepared in a very simple manner, and almost any person can manufacture it on the first attempt. The modus operandi is as follows: Take 3 oz. of Spanish Annotte, and cut up fine; dissolve over a gentle fire, adding 4 oz. of Brazil wood, (pounded.) After boiling about two hours, strain it into two gallons of pure rain water. If the color is wanted of a light shade, add almost half a pound of pulv. alum; or if a dark shade is required, add 1½ oz. of spirits of tin. After stirring well, pour it over about 20 lbs. of best Spanish white, and cover over. After remaining for two days, place it in small cakes in the sun to dry, and you will have a superior article of rose pink. It should always be kept in a damp place, and not exposed to the light, as it will soon fade.

BLUE.

Prussian blue. There are other colors coming under the head of "blues," but none contain so much body and coloring matter as this, and with the carriage painter it is almost an indispensable requisite, used in combination with the common drop black—(one part blue to two parts of black) it produces a color not inferior to the best ivory black. It was entirely by accident that the discovery of it was made, but a very fortunate one for the arts. A druggist who had, in Europe, been making some experiments, poured some solution of one of the salts of iron in a barrel of liquid potash, and found a bright blue color was the result; following up the hint, he soon succeeded in producing what we now use as Prussian blue. It is manufactured in this country in large quantities, and is frequently adulterated with chalk and starch. To test it pour a little vinegar on a piece of the suspected article, and if it crumbles to pieces it is a sure indication of chalk; and if it forms a paste when boiling water is poured over it, there is starch in it. Sometimes it is adulterated with indigo. Break a piece open, and unless the coppery tint disappears upon rubbing it with the nail, you may be sure that it is mixed with the above. When mixing this color, oil should never be used, as it has the effect of making it take a yellowish tint; the more oil that is added, only serving to deepen the yellow.

ULTRA MARINE BLUE.

The Custom House entries showed for the year 1852, the entry of 120 bbls of this article, while the amount consumed, must have been over a hundred times that amount, and as there is no materials to be found in this country to make it with, the inference is plain. Many years ago, the price of ultra marine was almost fabulous, being worth almost its weight in gold, the pure article being prepared from the "Lapis Lazule;" but recent discoveries in this and other countries, have served to demonstrate that an article almost approaching in brilliancy and effect to the genuine, can be produced, at very little more cost than any other pigment or color. This color possesses but very little body, in consequence of which great care must be taken to ensure a good job; three and sometimes four coats are necessary before a good job is produced. The addition of a very small quantity of flake white when mixing, is very useful, to which (if the color is to be very dark,) add a little lake or rose pink. Before applying this color, care must be taken to stir the

contents of the cup well, as it is liable to settle, if left a short time, and it should always be put on very heavy. Some use varnish in mixing this color, but I prefer one part oil and two parts turpentine, adding sugar of lead as the drier. The use of japan causes it to assume a dirty, muddy hue. Very often this color is mixed with the sulphate of indigo, or, as it is more commonly termed, "saxon blue," which having in its composition a large per cent. of oil of vitriol, has a very bad effect, causing the work to crack and appear of a dead, pale color. To test it, take a small quantity and mix entirely with raw oil, and expose it to the sun a few hours, when if the saxon blue forms a portion of the paint, it will turn to a dull green color.

CHROME GREEN,

Of which "Dehneir furt Green" is the proper name, is a color but rarely used at the present time. A few years since it was a favorite color on heavy work. Many painters still use it in preference to other varieties of "greens;" it possesses a good body and works well, but is a very unhealthy color to use, as a large proportion of it is composed of verdigris; the vapor or fumes that arise from it while grinding, will seldom fail to cause a severe headache and sickness at the stomach, and often the use of colors of which verdigris forms an ingredient, brings on an attack of the painters' cholic.

OLIVE, AND OTHER GREENS

Have for their basis, mostly chrome yellow and drop black. When a deep olive is wanted, Prussian blue is added, but any shade of green may be obtained by the admixture of blue and yellow colors. The most favorite green in use is mixed as follows: Two parts of drop black, one part each of chrome yellow and Prussian blue; if for heavy work, add a small quantity of vermilion, which gives it a mellow appearance. The use of common or lamp-black in the preparation of these colors, serves to give them a pale, watery tint, very unpleasing to the eye.

The foregoing, form, I believe, nearly all the colors that are used in carriage painting, and I will now proceed with what are termed mixed or compound colors. The many different colors that can be produced by mixing different ones together, are almost without number. I shall only offer a few remarks on those that are most frequently used.

DRAB OR BUFF COLOR

Is made by mixing white lead with yellow ochre. If wanted to be of a dark shade, add a very little Prussian blue; if very dark use drop black instead of blue.

BROWNS.

For a light brown, take drop black two parts; one part Indian red, and one part white lead. For dark brown omit the white lead and use instead one part Prussian blue; one part vermilion, and two parts of black forms a beautiful brown. For the ground work of claret the brown is made from one part of Indian red and two of lamp black, which possesses sufficient body to cover with one coat, if care is taken when applying it.

VIOLET.

Take one part vermilion, (or if a dark shade is required, use lake;) one part Prussian blue, and add white lead, regulating the quantity by the shade you wish to obtain.

ANECDOTES OF PAINTERS.

PAINTING BY THE DOZEN.—The celebrated Hopner was of the *genus irritabile*. A wealthy stockbroker drove up to his door, and two carriages emptied into his hall, in Charles street, a gentleman and his lady, with five sons and seven daughters, all samples of *pa* and *ma*; as well fed and as city bred, and comely a family as any within the sound of Bow bell. "Well, Mr. Painter," said he, "here we are, a baker's dozen. How much will you demand for painting the whole lot of us—prompt payment for discount?" "Why," replied the astonished painter—"why sir, that will depend upon the dimensions, style, composition, and—" "O, that's all settled," quoth the enlightened broker; "we are all to be touched off in one piece as large as life, all seated upon our lawn at Clapham; and all singing 'God save the King!'" "These things," said Hopner, in relating the circumstance to an old crony, the critic poet Gifford, "these things are part and parcel of the detestables of portrait painting."

AN AFFRONTED ARTIST.—One morning, the late Mr. Christie,

the celebrated auctioneer, to whom had been entrusted the sale of a fine collection of pictures belonging to a nobleman, having arrived at a *chef d'œuvre* of Wilson's was expatiating with his usual eloquence on its merits, quite unaware that Wilson himself had just entered the room. "This, gentlemen, is one of Mr. Wilson's Italian pictures; he cannot paint any thing like it now." "That's a lie!" exclaimed the irritated artist, to Mr. Christie's no small discomposure, and to the great amusement of the company; "he can paint infinitely better."

For the Coach-Makers' Magazine.

THE IDEAL, INCEPTIVE, AND PROGRESSIVE HISTORY OF COACH-MAKING.

PART FIRST.—INTRODUCTORY.

'Twas Art! sweet Art new radiance broke,
When her light foot flew o'er the ground,
And thus with seraph voice she spoke:
"The curse a blessing shall be found."—CHARLES SPRAGUE.

Ever since the first dawn of literature, it appears to have been customary with most writers to preface their compositions with some formal kind of introduction, either in verse or prose. About two hundred years ago, or at the time the Prince of dreamers wrote his "Pilgrim's Progress," they were given in a very quaint and peculiar form of verification; frequently anything but appropriate; but in our time it has become the general practice of every caterer for literary honors to make his debut in very plain prose only. Among Magazine writers just now, it appears to have become the common practice, in the hope of thereby securing success, to send out great promises as to what they *will do* for their confiding patrons, but we seldom find these promises redeemed, or in other words, carried out. Now we do not intend on this occasion to place ourselves in any such predicament, if we can possibly avoid it, and therefore we shall not here put forth any extravagant promises, but would simply say to the gentle reader, (*gentle* reader lend us your ear,) that we will try our best with the material left to us by the editor of this Magazine, after his interesting chapters on the early history of wheeled carriages, and endeavor to collect together such scattered portions of history as he has not already given, in such a way as to avoid unnecessary repetition, and give a kind of superficial or surface account of the ideal, inceptive, and progressive history of our craft, as seen in the classic pages of antiquity; in fact, leaving off about where Mr. Saladee commenced. We trust we shall not be set down as arrogant, when we say, that we hope we shall not prove ourselves an unsuccessful gleaner in a field of study where others have previously gathered a plentiful and productive harvest. It appears necessary and forced upon us at the outset, in our history, to deal a little in the speculative, and at this point we confess we enter upon a broad and expansive field in which we may utter some foolish things, (please keep this admission secret, friend,) which some matter of fact reader may think had better never have been said, for when the mind is once launched upon this boundless sea, it is very much in the condition of the mariner with a faulty compass or a broken quadrant, out of sight of land; surrounded only by the trackless ocean.

Notwithstanding all we have previously written, unlike our worthy collaborer, we shall therefore make some pretensions in the following pages to look into the mysterious past further than history will lead us, but in this we shall not go any further than probability allows us to step. Every carriage maker who loves his occupation, (and who of us does not?) although he may not be a literati, ought to investigate the subject as it relates to the improvement and onward progress of the business which is his every day occupation, even should it require his entire leisure hours. Every new idea that we obtain, is adding or contributing thus much towards making us finished workmen. The careful investigator of history will learn, that notwithstanding the glowing descriptions of the chariot and other vehicles found in the classic page, still the trade must have either made slow progress in the past, or have retrograded; for until within a late period, the business remained in a very rude state. Until within a few years, how limited was the number in our country who kept their private carriages. When we refer back to the days of our childhood, such persons were very few, and generally looked upon as aristocratic by their less fortunate neighbors, and these very same carriages, which at that day excited the envy of the less fortunate, would indeed, could they now be produced, prove fit objects for ridicule to the present generation. We remember that our paternal grandmother in Connecticut—*requiescat in pace*—had in use what was by her denominated a "cheer," hung on wooden springs; no steel springs were then manufactured in this country, not unlike those applied to and technically known as the Boston chaise in our own day. The body was of a singular form; the standing top of a square shape, made of round iron, and altogether coarsely and rudely constructed—the cost too was enormous. Were we to exercise our Yankee privilege of guessing, we would suppose this "cheer" was constructed by one Chapman, (wonder if he was related to him of the anti-rattling?) who, our "old boss" used to tell his astonished apprentices, could make three bodies per week, using the hatchet in place of the saw, and working without the use of patterns, by his eye alone. Those were the times which tried men's—ingenuity!

But to return from this digression. Our design, then, in the second place, will be to give a studied history of the purposes and uses of such vehicles as are elucidated in the pages of the sacred and profane historian, and particularly by giving literal and original translations from the remains of the Grecian and Latin Poets, and shall endeavor to present our numerous readers with as correct a view of the business anciently, as can possibly now be done, down to the period when the Messiah made his advent into our fallen world. We expect to be able to compress all we have to say on this subject, within the compass of four or five chapters. E. M. S.

EDITOR'S TABLE.

MARCH, - - - - - 1856.

We have just received a very spicy letter from Mr. Edward Everett, of Quincy, Ill., in which we are accused of great imprudence by admitting Mr. Houssknecht's letter into the columns of the Jan. No. of the Mag., and are very politely informed, that we have inflicted injury and *insult* by so doing, which no subsequent explanation can wholly efface. He also reminds us of the supposed fact, that we have thereby given him the right to demand redress, and if possible, scare the editor, draw the wool over the eyes of his readers, and turn things up side down in general; and without attempting to explain (as he promised to do, if required, in his letter published in the Aug. No. Mag.) any part of Mr. Haussknecht's letter, asks us to publish this communication, which we most respectfully decline, for the reason that the species of argument he employs therein will not at all effect his purpose, nor yet satisfy the demands of an impartial and respectable public. If the gentleman would appear before the readers of this journal in the proper light, he must face the music from the Patent Office, given in Haussknecht's letter, and march accordingly. That patent office quotation, we think, demands his serious attention, and if he will condescend to explain it, he is welcome to our columns. But we cannot perceive the slightest propriety in publishing what he considers to be our duty as the editor of this Journal, to advise us what to admit into its columns, and what would be the most prudent to reject, &c.

The course that we have adopted has been, and ever shall be, *straight forward* and *independent*, yet willing to listen to the reasonable suggestions of every man, and if it makes an impression on us for good, to all parties concerned, we will most cheerfully adopt it. Still, we may not in every instance render universal satisfaction; no *one* man ever did, and as we claim no superiority to ordinary men, we do not look for it. And should a gentleman inform us that we have *insulted* him by doing what we sincerely believe to be our duty, we are not alarmed, and should such gentleman, for example, talk about *demanding redress*, we are not terrified in the least.

We have no acquaintance with either Mr. Everett or Mr. Haussknecht, (except by correspondence,) and up to the present time they have alike our friendship and respect, which is due them for the courtesy and polite manner in which they have ever treated us in their previous correspondence. Mr. Everett is always welcome to our columns, but his communications must have a little different tone from the one above referred to.

HE SERVES US RIGHT.

Our good Brother Stratton, has just given us a little blowing up, in consequence of our draughtsman having *added* a small handle to the seat of his New York Buggy, (plate 3 Jan. No.;) also the mistake of our engraver, by representing the boot of the same as a panel, when it was intended to be leather. In regard to the handle he adds—"which was no more needed than a toad needs a tail." Now we perfectly agree with Bro. S. that this despised little creature does not absolutely need a tail, and yet it is a subject which would admit of a controversy as to whether the application of such an ornamental fixture would not add material beauty to the general appearance of his toadship. One naturalist might think the animal greatly improved thereby, while another would condemn the addition as useless and unsightly, which after all proves it a matter

of taste; nothing more. Just so in the carriage kingdom. The addition or omission of lamps, handles, tassels, &c., (all of which in a *practical* sense are useless,) does not in any sense condemn the carriage, for as many as despise it, the same number, for reasons of their taste will admire it. Still he serves us right, as we ought to have seen that no such alterations of his drawings were made, and in asking his pardon for the mistake, we promise to look sharp in the future, and deprive him of the pleasure of raking us down again.

THE AXLE FACTORY OF A. E. SMITH.—In our last we promised an illustration of the above factory, and which we have given in the advertising department of the present No. The engraving of this factory will give the reader something of an idea of the extent to which Mr. Smith is engaged in the manufacture of case-hardened axles. This gentleman has obtained letters patent for a new kind of leather washers, which he applies to all of his axles. The advantage derived from the application of these washers is, they are more durable than the ordinary ones, and therefore the wheel and axle can be kept tight a much longer time, without the trouble of renewing them. He is also the inventor of a very ingenious, yet simple arrangement for connecting the wheel to the axle, without the aid of nuts or screws, which we mean to illustrate as soon as we can obtain a drawing of the same.

OUR REGISTER.—The new system we proposed in the last No. of the Magazine, we are happy to say, meets with a cordial welcome by the parties for whom it is intended. We have already received a number of applications from both journeymen and proprietors. But among the former we have not as yet received the name of a carriage ironer wanting employment; therefore we insert the following card:

WANTED—By Messrs. B. A. Sheidley, & Bro.'s, of Republic, Ohio, a first class carriage ironer, a man of steady habits and industriously disposed, to whom steady employment and liberal wages will be given. Good reference required. Address as above.

CARD.

The subscriber having become connected with another business, which demands his entire attention, offers to rent (or lease) his well known carriage shops for one or more years. An excellent lot of well seasoned lumber of all kinds, necessary for the business, together with unfinished work, &c. &c., will be sold to the renter at low prices, and good terms. As to the reputation of the shop, it is sufficient to say, that we have manufactured from \$6000 to \$8000 worth per annum, and have never had any finished work on hands unsold, it all being made to order. Any person wishing to commence a profitable business in a good country will do well to address immediately

J. R. GATES,
Eckmansville, Adams Co. O.

A subscriber in South Carolina has the following in one corner of a business letter:

"Your method of purifying lamp-black, pages 94 and 95, Guide for 1854, is very good as far as it goes. After burning the lamp-black and pulverising the lumps, we throw it in a pan of water. All the grit sinks, while the lamp-black floats, and is very easily collected. Try it, and if you think proper, publish it.

Yours,

E. WISS & SON.

AN OBJECTION TO READY-MADE CLIPS.—A subscriber in the West says:

"The general objection to machine made clips is, that they are too weak at the shank on account of the bolt part of the clip not running up far enough into the bar."

Will those for whom this is intended, take notice?

Contributors to this Number.

- "AXLETREES," - - - - - S. E. Todd, of N. Y.
 "RAMBLINGS.—No. 7" - - - - - Abr'm Terrill, of Ohio.
 "COACH-MAKERS AND THEIR JOURNAL," M. G. Tonsley, "
 "PAINTING, BY A PAINTER—No. 3," B. McCroher, of Mo.
 "WHO WILL ANSWER?" - - - - - B. G. Davis, of Pa.
 "HISTORY OF CARRIAGES AND CARRIAGE-MAKING," - - - - - E. M. Stratton, of N. Y.
 "IMPROVED SLIDE-SEAT CARRIAGES," A. Newton, of Conn.
 "NEW YORK BUGGY," - - - - - E. M. Stratton, of N. Y.
 "SOMETHING ABOUT SHAFT FASTENERS," W. S. Chapman, of O.
 "CARRIAGE COUPLING," - - - - - A. & T. Chope, of Mich.
 "THE COACH-MAKERS AND THE MILITIA CAPTAIN," - - - - - E. M. Stratton, of N. Y.
 "EDITORIAL CHIP BASKET," - - - - - " "

ANSWER TO CORRESPONDENTS.

B. T. & Co., of Ia., J. R. A., of O., and M. W. W., of Ill.—Mr. R. H. Brown, of Cleveland, Ohio, is now prepared to furnish to order, any quantity of his patent slide seat bodies, and at a lower figure than you can get them up yourselves. His prices vary according to the style and finish of the work. You will obtain further particulars by letter addressed to him as above.

E. K., of Tenn.—There are some points about the sketch you sent us, which seem to be an infringement on the Everett Coupling, and yet the use of the two bolts in the rear of the forward axle, as represented in your drawing may be sufficient to avoid an action against the parties referred to, for infringement on the Everett patent. If memory serves us correctly, the Messrs. Everetts & Hubbard have already been engaged in a law suit respecting this matter, but how it terminated we have not the means of knowing.

—, of Ohio.—The Messrs. Smiths, of Plantsville, Conn., have the reputation of making first rate clips. Do not think that there are any better to be found any where. See their advertisement in this No.

P. C. & Bro., of N. Y.—The Hub-Boring and Mortising Machine of Messrs. Lane & Bodley, Cincinnati, Ohio, advertised in this Magazine, is undoubtedly the best now in use. We can assure you that there will be no risk on your part in the purchase of one, as it will meet your most sanguine expectations.

S. & G., of Mo.—Your model of wheel with round spokes is received. Long experience has proven, that in order to give the spoke a proper strength at the hub, the tenon going into it must be larger one way than the other. It was this circumstance which led to the universal adoption of the form now in use. We are not quite ready to believe, that you can make a strong wheel with round spokes, and these with round tenons, and holes in the hubs.

A. & Bro., of N. Y.—We are not at all acquainted with the Newark Varnish. Not having used it, nor come in contact with any one who did, we are unable to give you the required information. Address a letter to Mr. Smith, the manufacturer, who no doubt can give you a reference to some of the craft who are using it.

T. D. D., of N. Y.—The drawings of your shaft coupling is received. We think it is something new, and can be made of great practical value. There is nothing to prevent you obtaining a patent for the same, and would advise you to make application immediately.

☛ Three original designs for light Calash Top Buggies, by the Editor, in the next No. of the Magazine.

☛ Mr. Terrill's Square Rule continued in our next.

WANTED IMMEDIATELY

A first class body-maker; one fully competent to serve as foreman in my wood-shop, to whom good wages and a permanent situation will be given. Address E. K. WISELL, Warren, Ohio.

For the Coach-Makers' Magazine.

THE COACH MAKERS AND THE MILITIA COLONEL.

H. Sparks, vs. H. Miner and H. M. Stevens.—In the Feb. term of the Court of Common Pleas, New York, Judge Ingraham presiding. The plaintiff, who it appears is a militia Colonel in the city, brought an action against the defendants, who are coach makers on Broadway, for a breach of a warrant in the purchase of a sleigh sold on commission for a manufacturer in Poughkeepsie, and as we suppose this case will be interesting to the craft generally, we are induced to give a report thereof in our columns.

It appears that Mr. Sparks purchased this sleigh in the winter of last year, for \$134, including a set of bells. On the first day out, the pole broke, which he tied together with a rope. Continuing his journey, it broke again in another place, by running down a lamp post, the horses bolting, the Col. being pitched head foremost into a snow bank. Perhaps this adventure would have ended here, but after having had it repaired, he found it detained until a bill of \$23 should be paid. As this was carrying the joke a little too far, the Colonel thought it time for him to act; so he brings action for damages to the sleigh and horses, and \$500 for injuries to himself personally, and the fright of the ladies.

The defendants answered, that the sleigh was sold as it stood, without any warrantee, and on this point there were two or three wit-

nesses brought forward (who were present at the sale,) and examined. One testified that he was present, and did not hear anything said about a warrantee. Another testified that he heard all that passed, and that both sleigh and pole were warranted. The next ground of defense was, that the sleigh was not sold as the property of the defendants, but on commission, as the property of the manufacturer, Mr. Harney, at Poughkeepsie, who should be liable for all damages, if any one had suffered by the transaction.

The Judge in his charge to the jury, said that the main question for them to determine, was that of warrantee; if there had none been given in the sale, then a verdict should be given in favor of the defendants. On this point, the evidence was conflicting, and also in that portion of the case relating to the quality and kind of the wood of which the pole was made. One witness swore it was black; another said it was white. The man that made it declared it was a good pole; this case then must be decided by weighing the testimony before them. If the damages were the result of the bad qualities of the timber of which the pole was made, and the defendants did warrant the articles at the time of the sale; then they had assumed upon themselves all the liabilities—not the manufacturer—and they were responsible for the repairs to the pole, the injuries to the horses, and to the plaintiff. The charge to the jury seemed to lean in favor of defendants, notwithstanding which the jury gave the plaintiff fifty dollars damages, which carries with it the costs of prosecution. We understand the Colonel was apparently greatly disappointed, that he did not receive a heavier verdict in his favor. We only wonder that he did not have the costs of the whole prosecution to settle for; and probably if every carriage maker (as in this case should have been done,) would preserve the broken portion of a vehicle, as is our custom, until the matter is settled, the plaintiff would have been defeated. E. M. STRATTON.

For Saladee's Magazine.

Editorial Chip Basket.

BY E. M. S.

This fellow picks up chips, as pigeons pass.—SHAKESPEARE IMPROVED.

INTRODUCTORY.—It is our design to fill up our chip basket monthly, if possible, with such short articles as we may find in our daily readings, or as our practical experience or observation may suggest as being useful to the craft generally. We may find it convenient, eventually, to give this column, to a certain extent, the popular form of notes and queries, as being the best calculated to accomplish our ends, which is to mingle the useful and agreeable together, to give practical knowledge and the result of experience in the fewest words possible. Would our intelligent readers lend us their assistance in this matter, we doubtless should be enabled to present to our friends such an *omnium gatherum* as would greatly enhance the value of this particular department of our Magazine. The art, mystery, trade and occupation of the coach-maker is of such a complicated nature, and requires such an amount of ingenuity in the practitioner, in order to excel, that if he is in any degree communicative, he may individually do much in contributing to the pleasure or benefit of the public, as well as promote more rapidly the advancement of the art among ourselves. Let us, then, hereafter, be as liberal and generous, as heretofore we have been silent and exclusive, and the result cannot be otherwise than beneficial to us, as well as creditable to the fame of our common country.

TRAVELING IN AUSTRALIA.—We are told in a letter from Geelong, of Sept. 10th, '55, that we have now two coaches every day to and from Ballarat, if coaches they may be called, for they are widely different from your notions of a coach. They have no springs, but they are hung on leather strings, so you are sure of being shaken well enough; nor have they any convenience for luggage; in fact, they are like a rough kind of open van. They carry about twelve persons, each of whom is allowed the liberal quantity of seven pounds of luggage; all excess in weight to be paid for. The distance is about sixty miles, at the outside, and the fare is £3 (\$13.32). They manage to get through in one day, which is

very well, considering the roads. In some parts you have to pass through the primitive forests, and it is no joke to drive four horses amongst the trees, winding about in every direction. In particular muddy and dirty places, the passengers have to get out and walk, but on the good parts the horses go at full gallop. About five miles of the road have been built with planks, placed close together, as an experiment. In dry weather it answers very well, but in wet it is slippery. There are several small towns growing up along the road, and good inns every few miles.

OUR TRADE IN AUSTRALIA.—Through the kindness of the Messrs. Mailler & Lord, of this city, who have kindly permitted us to examine their files of late Melbourne shipping lists, we learn that American carriages are coming into general use, and are very much preferred over English or their Colonial manufacture. One or two seat buggies bring a good profit; we have no doubt they will supercede all others. Care should be taken in the packing. The seams of the boxes should have tarred cloth pasted over them. Large shipments should not be made, as the market will not bear it. The carriages imported into Melbourne for the first quarter of 1854, amounted to £41,685; second quarter, £78,296; third quarter, £31,805; fourth quarter, £17,499. Total, £169,285, or about \$381,000 for the year 1854. For the first quarter of 1855, the amount was £22,343; second quarter, £17,640; July and August, £14,120.

CARRIAGE STATISTICS—ENGLISH.—In the year 1854, there was manufactured to the amount of £77,389, in great Britain; in the provinces, £54,580; of English manufacture imported into the United States, £9,249; do. foreign States, £1,258; the total amount of which, £142,476, or about \$322,000 for the whole year. The year previous, (1853,) the carriage manufactures of English subjects altogether only amounted to \$233,000.

A NEW PAINT.—A gentleman in France has discovered an article for painting, which he calls *colocirium*. He believes it identical with that used by Pompeian artists; it emits no smell, and is capable of being used in all weathers.

THE IRON TRADE IN WALES.—A late English paper informs us that in consequence of the improvement in the aspect of the iron trade, the iron masters of South Wales have determined to raise the wages of their workmen ten per cent., so you who use the article may consequently look for a rise in America.

SOMETHING ABOUT A SINGLE LEAF SPRING.—The correspondent of a N. Y. city daily paper, tells us that among the fine show of pleasure carriages exhibited at the fifteenth annual exhibition of the New York State Agricultural Society, held at Elmira, Che-mung, Co., was a very light trotting wagon, with springs of the elliptical form, with only one leaf to each half. This spring, the writer tells us, is something nice, by which assertion he shows his ignorance and lack of experience, for need we tell our intelligent readers that this description of spring has often been fairly tried, and as frequently found wanting in efficiency and durability? We have invariably been obliged to put in their stead the many leaved for our customers, and it is really surprising to us, to find the single leaf so often brought before the public.

THE LATE CARNIVAL IN NEW YORK.—The snow which fell in New York on the 5th of Jan. last, called out any quantity of jumpers, pungs, cutters, sleds, sleighs, (some with old crates, boxes or tubs for bodies,) and some of a nameless description, defying almost the abilities of Irving, that would astonish our far western readers. The number of public sleighs running on the twelve different stage routes in this city on the 7th of Jan., was *one hundred and fifty*, many of which were drawn by four, six, eight, ten, twelve and fourteen horses. As our public sleigh here is just like our omnibusses, there is always room for one more, no matter how much crowded; the number of passengers must have been countless; (estimated at about 75 each) and Young America appeared to enjoy it amazingly. Who says times are hard?

A PRIZE ESSAY—MEDAL OFFERED.—Among the prize essays of the Royal Academy of Sciences of Belgium, in the class of fine arts, is an enquiry into the cause of the excellent preservation of the works of painters of certain schools, and the decay of others; and into the composition of colors, oils and varnishes. The prize for each different subject is a gold medal of the value of 600 francs, (about \$102). Essays for competition must be written and sent in by the first of next June, either in Latin, French or Flemish.

PROSPECTUS FOR VOL. 1, 1855, OF THE COACH-MAKERS' ILLUSTRATED MONTHLY MAGAZINE.—REPRINT—FOURTH EDITION.

Every individual who is a subscriber to the present volume of this journal, very soon perceives that without the first volume his work is incomplete, and therefore does not possess to him that practical worth it would be susceptible of doing were it complete from the first No. Owing to this fact, a demand has been created for the back numbers, (among those who have but commenced with the present volume,) so great that we are induced to offer this Prospectus, and propose to reprint a fourth edition as soon as we shall receive 1000 subscribers for the same, (of which No. we now lack but one half,) and if all those who have already made inquiries concerning the back numbers will send in their names, the 1000 can be made out immediately, and we will forthwith proceed to reprint a large edition. The volume will be neatly bound in muslin, with morocco gilt back and corners, and will be furnished to single subscribers at \$4.00, or ten volumes for \$30.00, free of postage to any part of the United States. The money to be forwarded as soon as we notify the subscribers that the volume is complete, and ready for circulation, or to the Post Master on delivery. At present we want only your names and orders for the vol. 1.

OUR PRINTING ROOMS.

Advertising is one of the grand secrets to succeed in any or all mechanical pursuits, and the individual who in this age of printing neglects to give that publicity to his business which the times demand, is standing in his own light, between himself and that very dollar for which he is so eagerly contending, and in no branch of mechanism is it more called for than among the coach-makers. Every proprietor who is doing a tolerable business, should have a standing advertisement of his factory with correct illustrations of the different kinds of vehicles he is manufacturing, or prepared to build to order.

Having now over two hundred fine engravings of all the latest fashions of carriages, we propose to furnish each proprietor who is desirous of getting up a good advertisement, with a chart neatly illustrated with the different styles he may select from our stock of engravings, with his card and such other matter as he may desire to have printed in the centre, and the whole enclosed in a beautiful border, which he can have suspended in all public places, and send a copy of the same to any person from whom he wishes to solicit an order for a carriage. What would attract more attention than to send to the livery keeper, into the farmer's family, or indeed to any one who you think would be likely to want a carriage, than one of those charts which at once represents the various kinds of vehicles you can furnish them? Surely nothing; therefore it will be of more benefit than any other way by which you can advertise. We will furnish such charts for from \$10 to \$50 per hundred copies, owing to the size, the number of engravings, number of colors in which they are to be printed, &c. &c. Orders solicited.

OUR REGISTER, OR AN IMPORTANT SYSTEM FOR SECURING A SITUATION AND OF OBTAINING HANDS.

Proprietors in our department are often in need of help, and are frequently put to great expense, inconvenience, and loss of time in obtaining them, and there are hundreds of journeymen who are at times in want of situations, and many of them are compelled to waste their limited means in search of employment.

A great number of our subscribers have lately inquired of us whether we could not establish some system through which all such wants might be immediately supplied, and at the same time obviate the trouble above referred to. Now that such a system would be of vast importance and highly beneficial to the craft, will be universally admitted, and after a due consideration of the subject, we are induced to adopt the following plan, by which both proprietor and journeyman will be equally benefitted.

Viz: All journeymen out of employment, or likely to be so in a short time, or such as are desirous of changing their location, can, immediately upon such conclusion, address a letter to this office, stating the same, and such other facts as they may see proper, with a reference to their present or previous employers, and their names (with date, &c.) will be placed in a register kept expressly for that purpose; and all proprietors in want of hands will likewise address a letter to us, stating the kind of workman wanted, and all other particulars necessary, and by return mail the said party will receive a copy of all the names on our register (of that class wanted) with address, references, &c., when a correspondence can be opened with one or all of the names desired, and a workman immediately procured; and in case no workman of the class inquired after, is found in our register, the wants of such proprietor shall immediately be made known through the Magazine without additional charge; and all journeymen thus registered, as soon as a situation has been obtained, will advise us of such fact without delay, stating by whom they are employed, which item will be placed in the register in connection with their names, for future reference.

TERMS OF THE REGISTER.—All journeymen sending their names for the Register, will enclose 25 cents in postage stamps, and each proprietor is required to enclose \$1, for which he will receive a copy of the Register as above, or his wants advertised in the Magazine, so that in either case he shall be sure of hearing from the kind of workman wanted.

OUR DRAWING TABLE.

We have now secured the exclusive services of a carriage draughtsman, who, from his long experience and close application to the art, stands unequalled by any other of the same profession in this country. Having been engaged in all the principal European cities, and for the past year in the city of New York, he has acquired a knowledge of the various styles of carriages among the different nations, which but few possess, and consequently is capable of representing a greater variety of style in his designs than could otherwise be expected.

From our Drawing Table the craft can obtain a sketch of any peculiar design or fashion for a vehicle, which they may desire to have, aside from what they see illustrated in the Magazine. Almost every mail brings us an application from some part of the country, for a design of a certain kind of carriage, which is peculiarly adapted or limited to a certain purpose or a certain location, (and which peculiarity forbids its appearance in the Magazine.) One, for example, wishes a certain style of Band Wagon; another a design for a Peddler's Wagon for this or that purpose; another a Hearse; an odd kind of Coach; and others again, a design on a large scale, for a Factory, &c.; all of which can now be furnished at this Office, on the shortest notice, and on the most reasonable terms.

Drawings executed either plain or colored.

THE COACH-MAKER'S MAGAZINE.

SPROUT'S COMBINED CARRIAGE SPRING. PERCH AND BRACES! THREE COMBINED.

In offering this Spring to the Coach-making public we would most respectfully call the attention of the Craft to the following advantages they embrace over the ordinary Elliptic Springs :

- | | |
|---|--|
| 1st. Possessing double the strength and elasticity. | 7th. It serves effectually as a perfect brace to the whole vehicle. |
| 2d. A Carriage can be built much lighter. | 8th. Requires much less labor, wood and iron to construct a carriage. |
| 3d. Much less concussion to the passengers. | 9th. The whole connection being of spring steel, a gentler motion is felt (instead of sudden jars, as with the ordinary perch and stiff braces,) and thus gives relief to the entire carriage. |
| 4th. Its liabilities to get out of repair are not near so numerous. | |
| 5th. The wheels adjust themselves to the road without the carriage rocking. | |
| 6th. Springs designed for a heavy load will carry a lighter one with ease. | |

These Springs if applied to the Carriage according to directions, (accompanying them) are not only warranted to stand, but to accomplish every point set forth in this advertisement, and any time within one year should they fail to perform, they can be returned, and the money refunded.

We are well aware that numerous patents have been granted within the last three years for improvements in Carriage Springs, and after the right was extensively sold to the Coach-makers throughout the country, many of them proved perfect failures, and thus shocked the confidence of the craft generally, in improvements for this branch of the carriage. But the proprietors of this Spring having full confidence in their improvement, have at a great expense erected large factories and employ the best facilities for their manufacture ; and now offer to the public (not the right to make, &c.,) but the Spring itself and in a manner that none will be the loser to give them a trial, at the following low rates :

PRICES.

Sulky Springs	- - - - -	per sett, \$10 00	Slide Seat Buggy Springs	- - - - -	per sett, \$17 00
Light Buggy Spring	- - - - -	" 15 00	Four Passenger	- - - - -	" 19 00
Top Buggy	- - - - -	" 16 00	Six	- - - - -	" 22 00

Persons sending their orders for a peculiar shaped Carriage should take the side or rocker pattern of the different bodies to which the Springs are to be applied, and mark them off on the white side of wall paper, and also make the points at each end of the pattern where they desire to have the body loop to terminate, and forward the same, and the Springs will be made to harmonize with the shape and length of the bodies.

RECOMMENDATIONS.

REPORT OF THE N. Y. STATE AGRICULTURAL SOCIETY— SPROUT'S COMBINED CARRIAGE SPRINGS.

An entire new arrangement—getting double the resistance and elasticity, with less expense and weight of metal. The Committee recommend it as a valuable improvement a silver medal. In the Committee's awards they have given the Society's Silver Medal to the most meritorious articles.

J. B. LANGWORTHY.
JOSEPH SLOCUM.

I have used about one thousand dollars worth of Sprout's Combined Springs, and have not heard of the least dissatisfaction, but on the contrary universal praise. I have them under my own carriages for use, and know them to be the easiest and most durable springs that can be applied. Carriages can be got up with much greater despatch, and at less expense. All that part most liable to get out of repair is covered by these springs and warranted. They vibrate freely, and their motion over rough roads is peculiarly delightful. I can truly say I know of no spring equal to them now in use.

Milton, June 18th, 1855.

I am the owner of a livery stable, and have used nearly all kinds of springs, and have found none equal to Mr. Sprout's for ease and durability. The tops of buggies keep their places much better, not

sagging sideways, and for rough roads nothing can equal them. I can save 50 percent. in repairs by using these springs.

Milton, June 1855.] J. WILHELM.

I had a 2 horse passenger wagon supplied with elliptics, which was, owing to the roughness of the roads continually getting out of repair. I had them exchanged for a sett of Mr. Sprout's, since which time I have had no trouble; often carrying double what he warranted them to do. They have been in continual hard service for over two years, and are now as good as ever. They carry one or more persons with perfect ease. I also have them under buggies in my livery stable, and find them attended with much less expense than any other Spring.

Muncy, Pa., June 1855.

We, the undersigned, have had the old elliptic taken out, and Mr. Sprout's put in place and although attended with considerable cost, yet the difference in ease and durability far exceeds the trouble and expense.

JOHN F. McLAIN, Hughesville, Pa.
J. M. B. PETRIKIN, Att'y at Law, Muncy, Pa.
WM. M. RANKIN, M. D. " "
H. WOOD, M. D. " "

A short time since, as I was traveling to a neighboring county, just before me I saw a buggy with Sprout's Combined Springs, which seemed to move over the road with all ease, the wheels working into ruts, over roots and stones, at the same time the

body keeping its horizontal position, while that of my own tossed me from side to side, rendering it extremely difficult to retain my seat. I sold my buggy the first opportunity, and purchased one with Sprout's Combined Springs, and now I have the pleasure of riding as easy as my neighbors.

Hughesville, Pa., June 18, 1855.

RUSSEL BODINE.

I have a buggy and sulky with Sprout's Combined Carriage Springs, which I have used two years. In my opinion they exceed any thing of the kind ever offered to the public. Persons who consult ease, after having used these Springs, can never be persuaded back to the old elliptics.

Hughesville, Pa., June 18, 1855.

JOHN H. ROTHROCK, M. D.

TERMS:

All orders must be accompanied with the money to secure immediate attention, and directed (either by mail or express) to SPROUT, BURROWS, & CO., Hughesville, Lycoming Co., Pa., or their agent, ISAAC L. HUNT, No. 215, Pearl St., N. Y. City.

CAUTION.

Springs of an inferior quality have been manufactured and sold by persons without authority. This is to caution the purchaser as well as the vender, against such infringement, as they will be dealt with according to law.

SPROUT, BURROWS & CO., Proprietors.

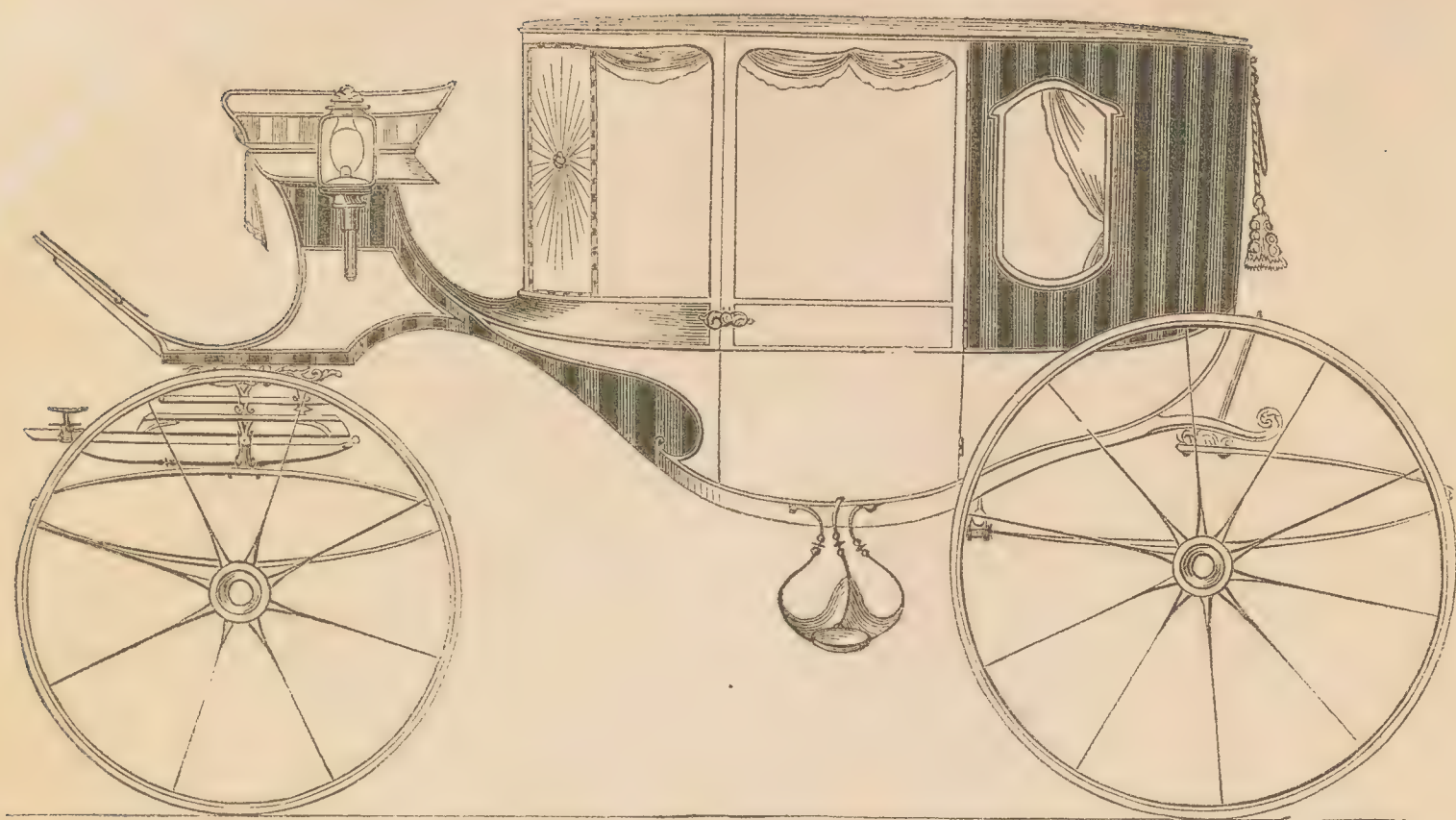


Fig. 24.—Saladee's American Coach, (Original.)

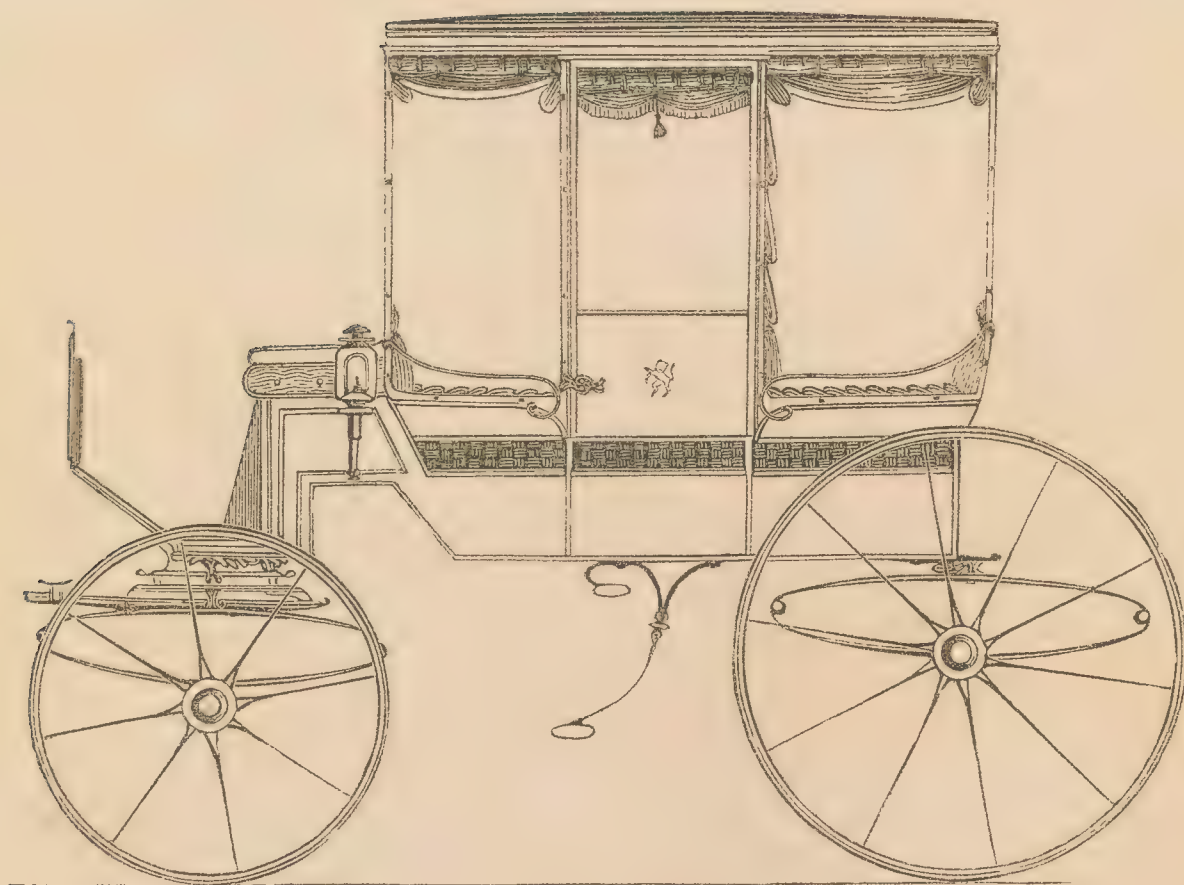


Fig. 25.—The French Brett.

PLATE XII.

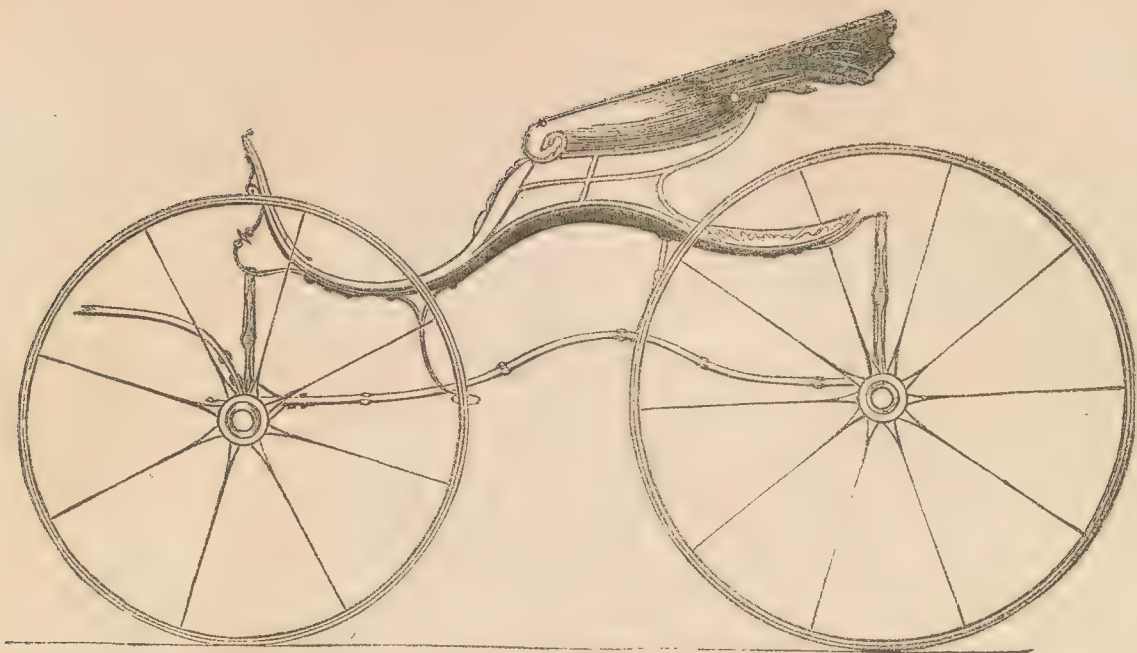


Fig. 26.—Saladee's O G Buggy.

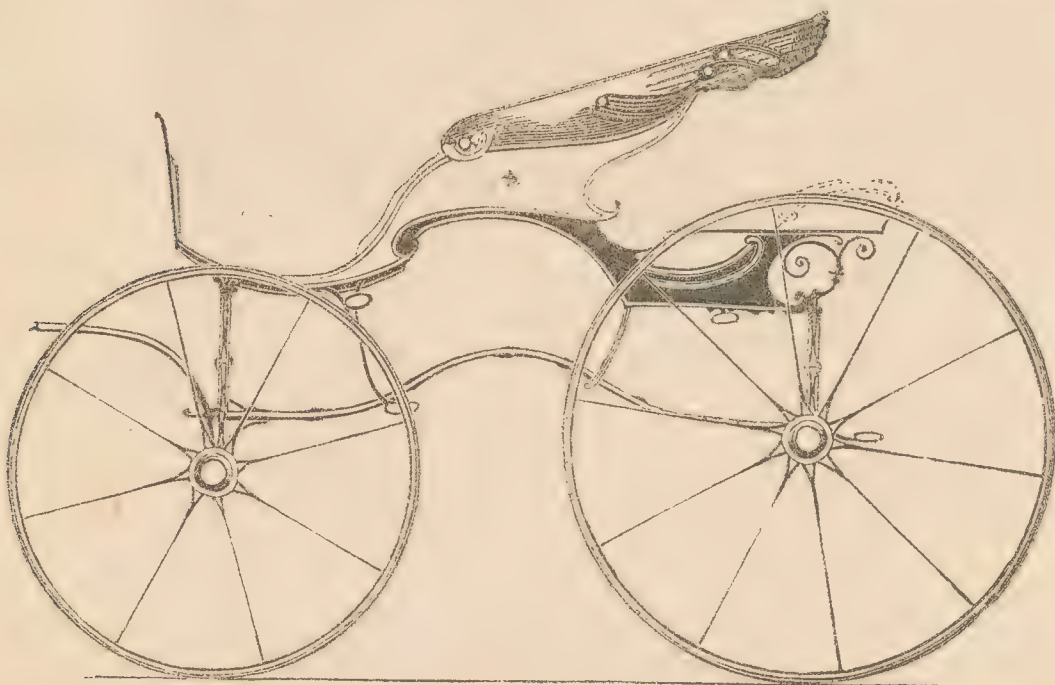


Fig. 27.—Saladee's O G Phaeton, with turn over seat.

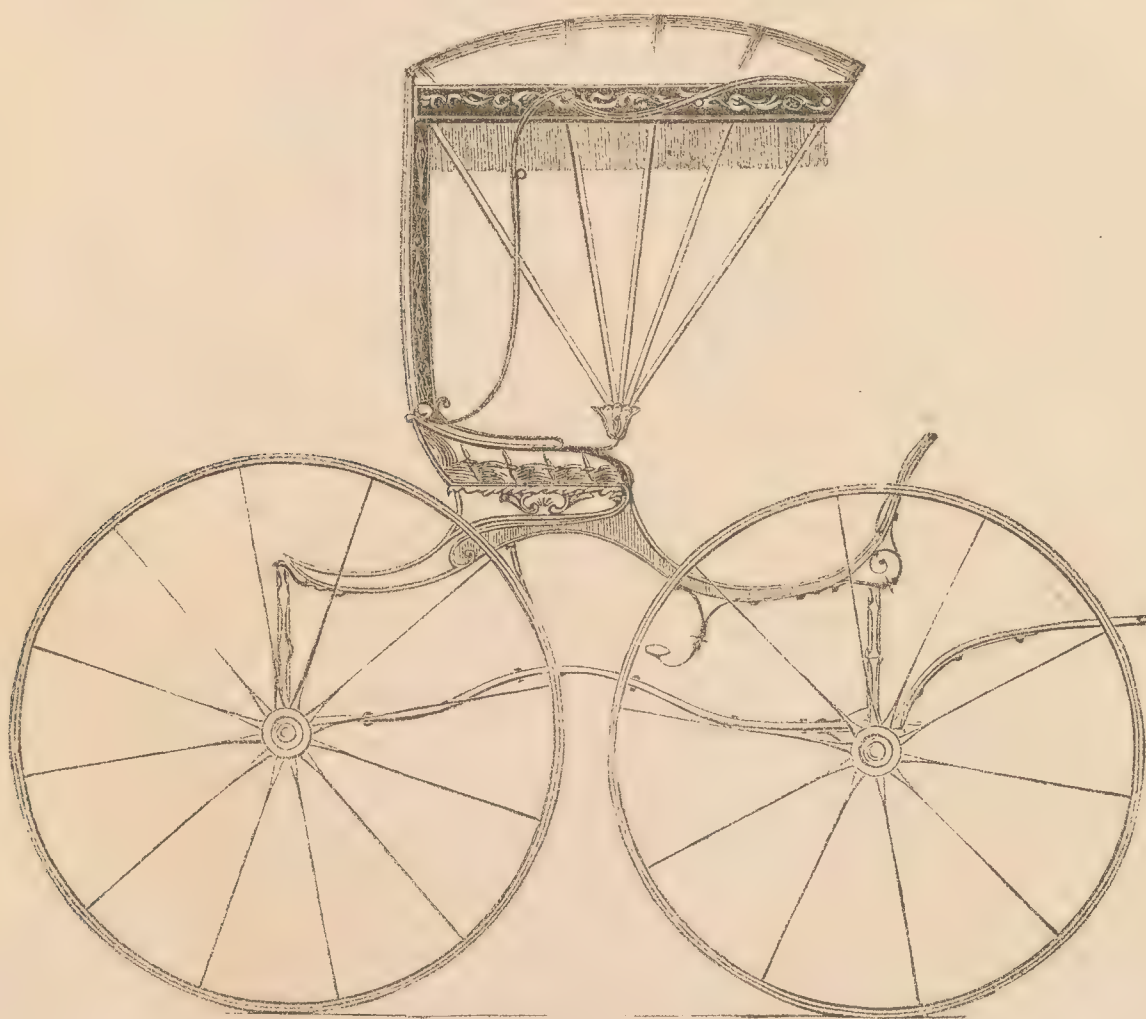


Fig. 28.—Saladee's Yankee Phaeton.



Volume 2.--Number 3.]

April, 1856.

[C. W. Saladee, Editor and Proprietor.]

TERMS:

Single subscription	one year	- - - - -	\$3 00
Clubs of three	"	- - - - -	8 00
" " six	"	- - - - -	15 00
" " ten	"	- - - - -	20 00

Payable invariable in advance.

All Clubs, however, must be sent to one address.

Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented stamped on the cover in gilt letters.

All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Persons visiting New York, who are not subscribers, can see the Magazine and subscribe by calling at the Office of the Coach-Makers' Magazine, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for New York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

Back Numbers, from January 1st, furnished to all new Subscribers.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

All advertisements for a shorter time than twelve months are charged 50 cts per line for each insertion; Payable in advance.

Fashions for April.

FIG. 24.—SALADEE'S AMERICAN COACH.—(ORIGINAL.)

In presenting this original design for a close carriage, we do not indulge in the vain hope of meeting the sanguine expectations of the many friends who have repeatedly expressed a desire of seeing such a design from us, but we do flatter ourself with the belief, that each manufacturer will observe some new feature it embraces, that will be worthy of their approbation, if not their skill to imitate. In this we have not attempted any thing like extravagance in its mode of construction, nor to hide any defect by diverting the eye with the multiplicity of ornamental work and carving, as is too often the case in the finer class of carriages, both in this country and throughout Europe at the present time.

That design which in itself embraces the greatest degree of *unassumed* beauty, and *delicate* neatness, with a due regard to fashion, is, in our estimation, the best and most appropriate model. With this idea as to what constitutes a perfect carriage, we executed the design represented by fig. 24, and here submit it to the inspection of our friends. The construction of the body will be readily and fully comprehended by consulting the drawing. However, a few explanatory remarks respecting the finish may not be amiss. The trimming is illustrated by the large figure in the trimming department of this No. A deep blue brockatel, with fancy stitched leather fronts for the cushions, will make a very appropriate trimming for the seats, and all the head linings of a light sky blue. The star lining in the front window is of a bright, yellow satin, which on the inside of the carriage will be hid with the blue brockatel, so that the yellow silk work is seen only from the *outside*.

The style of painting. The lower panel in the back quarter, door, front quarter, and under the driver seat, should be of a bright lake, and that part of the body immediately under the front windows and extending up to the back of the driver seat, should be black; so, also, the concave panel extending across the body at the back of driver seat, and the remainder of the rocker, the small panel in the driver seat, and the long panel in the back quarter will be of a very dark blue, delicately lined, (as represented in the drawing) with lake or white. The former, however, is the most appropriate, for the reason of its being employed in the lower panels. The blue used in painting should be the same shade of the brockatel for the trimming, so that a perfect harmony of colors may be secured throughout the entire carriage.

For Saladee's Magazine.

FIG. 25.—THE FRENCH BRETT.

MR. SALADEE:—Enclosed you will find a drawing of the French Brett, slightly modified, which I offer for publication in your deservedly popular journal. I have already made one of these carriages, from which this drawing was made, and like it very much indeed. It also seems to be quite a favorite among the majority of my customers. It is verily the neatest and most convenient style

for a six passenger standing top carriage I have ever made, and therefore do most heartily recommend it to the favorable notice of my brother craftsmen. I am now building quite a number of them, with but one exception, and that is, with perch and but one spring in front. The body is all solid side work, with light $\frac{1}{2}$ in. panel. The seats are flaring or beveled, as will be seen in the drawing. The long, narrow figure in the side, and extending across the body behind, is represented in the painting. A very beautiful design for this figure is to paint it an imitation of oak, rose wood, or curled maple. These carriages I shall sell at \$275 and \$300.

G. W. S.

FIG. 26.—SALADEE'S O. G. BUGGY.

The side elevation of this buggy will at once explain its mode of construction. We may add, however, the body is panel work. The bottom side is made wide enough at the back extremity, to form the narrow side of the body at that place, and the O G pillar in the back is joined to the bottom side at the point where the mouldings unite, and the back part of the side is finished out with an appropriate piece of carving. The panel in the side can be moulded off as represented, or left plain, and finished with a delicate ornament in the painting. This is something in the way of a buggy entirely original, and is one we think that will justify its adoption in every factory where the better classes of work are constructed.

FIG. 27.—SALADEE'S O G PHÆTON WITH TURN OVER SEAT.

The construction of this body is the same as Fig. 26, if we except the application of the turn over seat. The design of this was suggested as will be observed, by the O G buggy, and is equally original. For a fancy city article after this style, we would recommend its being suspended without perch, as by that arrangement it will make a much lighter and richer appearance.

FIG. 28.—SALADEE'S YANKEE PHÆTON.

Some three months ago, while in Yankee land, we called on one of our old contributors, who showed us a rather fancy design for a body which he called the *Yankee Phaeton*, and which suggested to us the idea embodied in the one we here illustrate, and therefore send it out with the name that will indicate its origin, as having been a *Yankee notion*. Although it differs widely from the one above mentioned, it is nevertheless worthy the name it bears, for if made as represented in the drawing, it will make something really fancy, and withal simple in its form of construction.

COMMUNICATIONS.

For Saladee's Magazine.

CHAPMAN'S SHAFT FASTENER AGAIN.

Fig. 1.

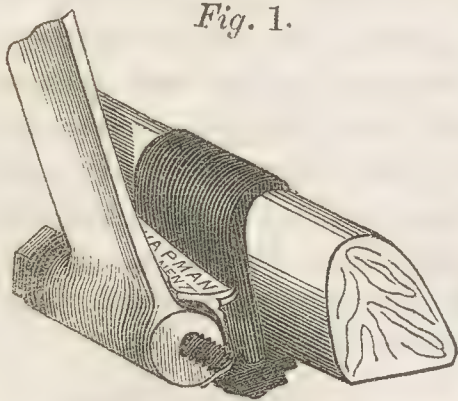
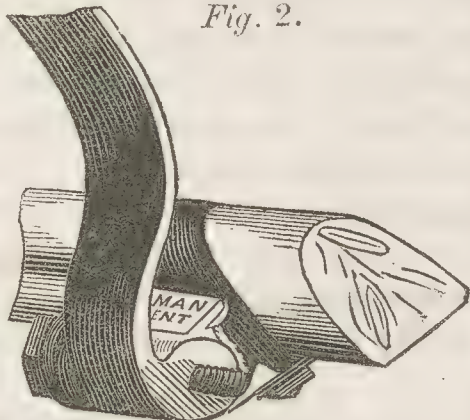


Fig. 2.



C. W. SALADEE, ESQ.—*Dear Sir*: I wish to correct an error into which you have very innocently fallen, (in March No. of the Magazine,) as to the *cause* of the bursting of the vulcanized rubber blocks of my "Pat. Shaft Fastener" in raising the shafts against the dash of a carriage. When the blocks of my Fastener are properly used, they are subjected to a pressure, which reduces them (from the cen-

tre of the hollow to the back side,) to one-half the original size. You thus gain body and solidity of rubber sufficient to sustain any movement of the horse forward or backward, without at any time moving or loosening the shaft head on the bolt, which is the desideratum to be gained; hence my blocks are effective at all times; you therefore prevent friction and necessarily stop wear.

Now, the *cause* of the breaking of my block, is not in the quality of the rubber, but in the shape of the head of the shaft; *being such* that when raised to the dash, it increases the pressure on the blocks, far beyond that they are already under or intended to bear, and they give way. I only warrant them to stand a pressure reducing them from $\frac{1}{2}$ to $\frac{1}{4}$ inch; which a daily experience of three years teaches me will give the desired end.

The *effectual remedy* for the bursting, of which you speak, is simply in making the shaft head, to have the ball or head *all on the top* side of the shank, as in the accompanying drawing, fig. 2, (which is no extra trouble or expense in making,) instead of projecting any on the under side. In fig. 2 you will notice the ball being on the top side, forms a recess or space for the *top lips* of my blocks, relieving it from any greater strain. If you put an additional strain on the top lips of my block, you will see, as it has nothing on the top surface to hold it down, or drive the pressure horizontally, the strain must inevitably come on the *centre* of the block, which has the pressure it is intended to bear. Several carriage makers who have used my patent fastener with great satisfaction for months, having taken at first the same view of the matter as you did, have discovered their error and acknowledge the *cause* and *remedy* as above stated.

I pay my manufacturers a high price, to get a good article, and they warrant *all my blocks to be of the very best quality of "Vulcanized India Rubber."* I shall at all times be happy to replace any defective blocks that I may sell to my customers, with good ones. I have the assurance of many of our best carriage-makers that "at my present prices they can give their customers a clip that secures safety, durability, and will run quietly, for less money than they have formerly expended in getting up their shaft jacks."

Geo. W. Watson, Esq., of Philadelphia, is using my improvement on his own buggy and work, with entire satisfaction and economy to his customers.

Fig. 1 represents my improvement with the shafts turned up to the dash.

Very respectfully, yours,

WM. S. CHAPMAN.

Cincinnati, March 12th, 1856.

[Those who are using this elastic fastener, should be particular to observe the foregoing suggestions of Mr. Chapman, and by so doing the only objection ever offered to this improvement is wholly set aside. On the receipt of the above, we took the pains to reinspect those blocks on our carriage, (before referred to,) and find that they are operated upon as shown in fig. 1, and which is doubtless the original cause of their bursting.—ED.]

[For Saladee's Magazine.]

FASHIONABLE HARNESS.—NO. 1.

INTRODUCTION.

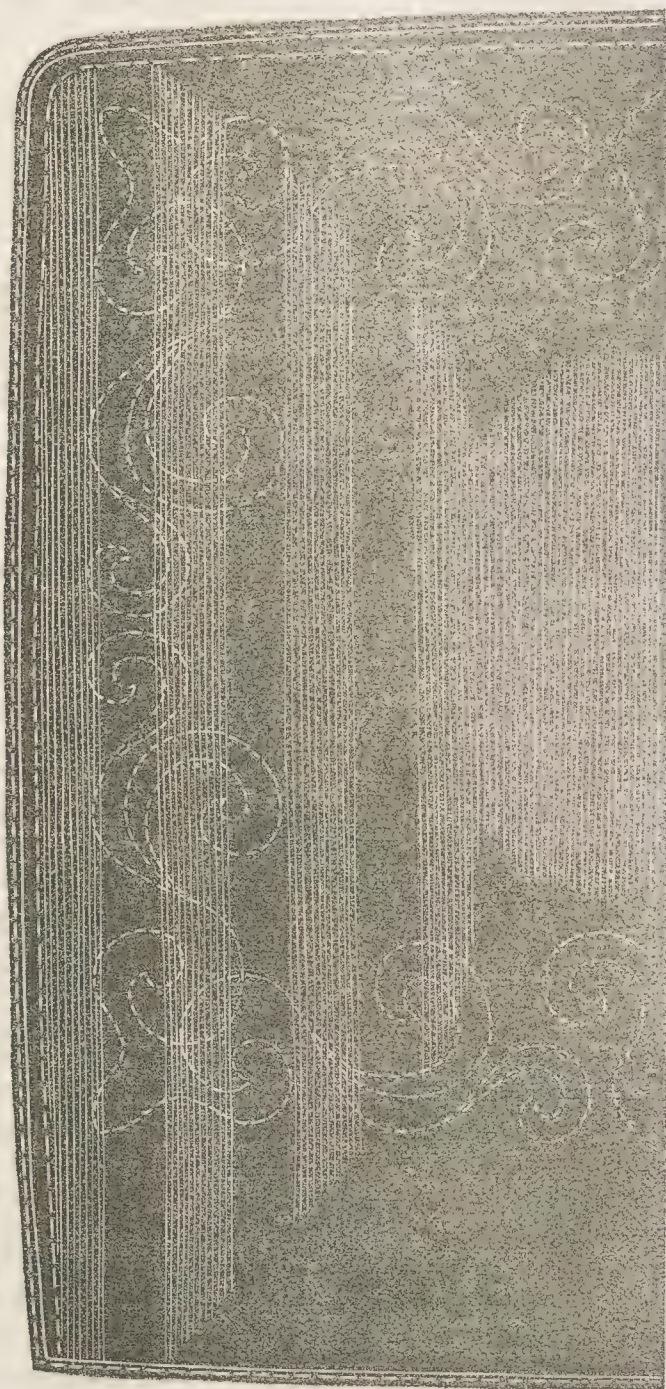
MR. EDITOR:—I have now undertaken to give your readers fashionable designs for carriage harness, and in addition to this I have thought it proper to offer some practical remarks on the construction of harness in all its various branches. I will therefore commence in this chapter with a light sett of trotting harness, and shall, from time to time, illustrate the different parts with appropriate explanations, until the same is complete; giving the lengths, &c., of each part, as cut from the leather, also the lengths of fitting up each respective piece, and as this is the first appearance in your Magazine of my contributions, I sincerely hope it may be instrumental in prompting other of the brethren in the craft to lend us their aid, so that an interchange of sentiment may be opened through your columns. Knowing that the field is wide and inviting, I have every reason to believe that the craft *will* respond to the call, and if in so doing, they should find they had adopted *excelsior* for their motto, I shall consider myself amply repaid for my trouble.

Fig. 1.



The above engraving is an illustration of an improved carriage harness from the well known manufactory, No. 314, New Oxford St., London, England. He has recently brought out a very chaste and elegant mode of ornamentation for harness. The material used, and which has all the effect of polished ivory, is from the tail feathers of the peacock, and is worked with needle. The design is extremely rich and elaborate. The novelty of the idea is worthy of all admiration, and the material is much more agreeable to the eye than silver or brass or silk; is exceedingly durable, and gives

FIG. 2.



no trouble in cleaning. The *winker*, of which we give a design in the above illustration, was prepared for his Royal Highness the Prince of Wales. Her Majesty, the Prince Albert, the Dutchess of Kent, and other branches of the royal family, are patrons of this very ingeniously devised ornamentation of harness. The trade generally speak of it as an absolute *chef d'œuvre*.

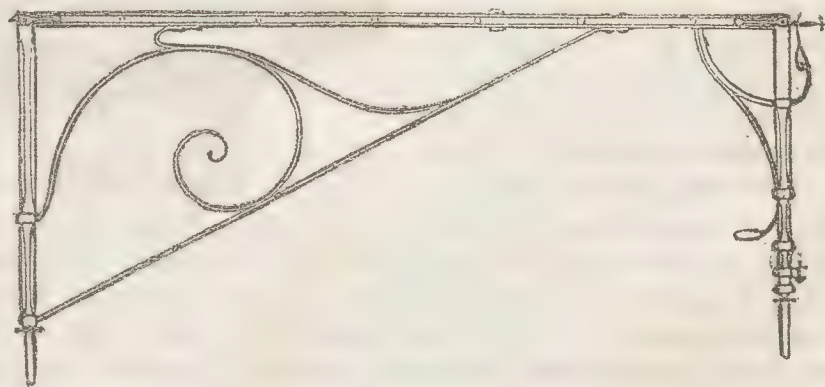
Fig. 2 is a very neat design for a square winker, 5 by 5½ inches; it is considered by the majority as very tasty and appropriate for a light bridle; however the shape of the winker varies materially in accordance with the taste of the individual. It will be found an easy matter to duplicate this design of stitching from the above illustration, by taking a fine piece of patent leather and rubbing the surface over with a piece of tallow; when thus prepared, place it under the leaf containing the said illustration, and with a small steel point carefully trace the design of the scroll-work; by this process, we have very rapidly transferred the figure from the paper on the leather. Having the tracing now upon the leather, our next duty in the regular course of work will be, to take it out with the race-tool, after which the tallow previously applied is rubbed off. This piece of leather, therefore, is the *pattern* from which we will hereafter work. Now, then, let us proceed to show how by the aid of this pattern, we can again transfer the figure upon the winker to be stitched. Supposing the winker to be cut out ready for work; you will treat the surface with the tallow, as first above stated, and then lay the face side of your pattern on the surface of the winker, and press the two gently together; when the pattern is removed, you will find you have a perfect impression of the design on the winker, ready for the race-tool and stitching. This same pattern, then, will answer for as many more impressions as you may after desire to have.

This plan is *new*, and I think is certainly far superior to the one in general use. It is done in one half the time, more correct, and when done, answers a much better purpose, for the reason that it does not require that great care while handling the piece to be worked, as in the old way, to prevent the figure from being rubbed off. The usual manner by which the figure is marked upon any piece of leather to be stitched, is to prick through the pattern on the paper while lying on the leather, with some sharp point; another plan, however, in use, is to take some pulverized chalk and dusting it over the pattern until the pin holes are filled up, which while in the act of lifting the pattern from the leather, is liable to brush off the figure, unless the greatest care be exercised. Scroll work on harness is considered something extra fine, and all the stitching on the patent leather should be of the same design in order that one part will properly correspond with the other. This scroll work has a very beautiful effect when stitched with colored silk, but black is more fashionable and chaste, and is not so subject to fading as the colored silks.

R. M. S.

For Saladee's Magazine

DESIGN FOR IRONING CARRIAGE PART.



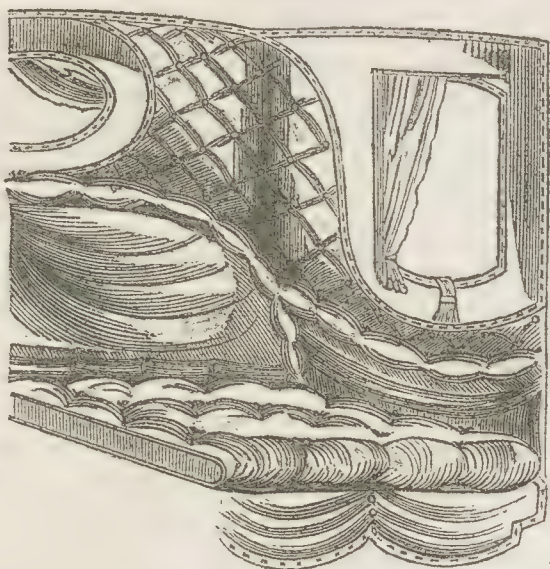
MR. EDITOR:—The above is a very fine design for the arrangement of the iron work to carriage parts. The brace running out from the fifth wheel to the front axle, has a step forged on the end as shown in the sketch, and turned up above the axle, on the rear side. This brace not only adds to the general appearance of the front portion of the carriage, but it also serves as a great support to the lower half of the fifth wheel, making it much more permanent, and at the same time gives an admirable opportunity for the application of a step to the axle, which in many cases proves a great convenience.

G. S.

TRIMMING DEPARTMENT.

BY G. D. M'LANE, NEW YORK.

Fig. 6.



The above is a very original, and rich style of trimming for close coaches, with red and gold colored French cotelean. I very lately saw a carriage of the close style, trimmed with the above material, and the fronts of the cushions were made of black patent leather, fancifully stitched with white silk, which in my estimation gave the most rich and pleasing effect to the entire trimming, of anything I have ever yet seen, and do most heartily recommend it in all classes of carriages where the *cotelean* or *brockatel* is employed in the trimming. The drawing of this trimming will fully explain its mode of application, and as every trimmer is familiar with the various ways of making backs, &c., they require nothing more than a correct sketch, which I will always endeavor to furnish in this department of our Magazine.

Fig's 7 and 8 represent a new design of trimming for light fancy buggies, with shifting tops, or without tops. The tops of the cushions and the front of the apron is finished with a piece of *braided* work, made of $\frac{3}{4}$ in. strips of white and black leather, and put together after the manner illustrated in fig. 7. This *net* or braid work is secured to its intended locality by means of surrounding borders of black leather, ornamented with white stitching, (as illustrated in the engraving,) after which the whole piece is pasted to some stiff material, such as two or three thicknesses of buckram or canvas, for the purpose of

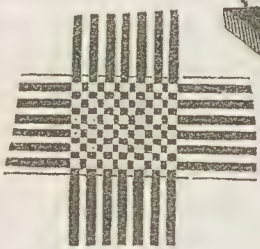


Fig. 7.

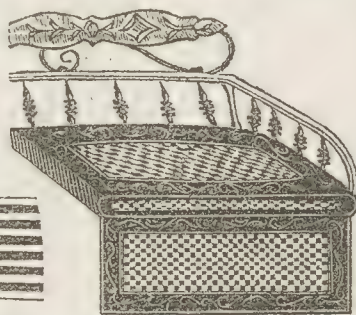


Fig. 8.

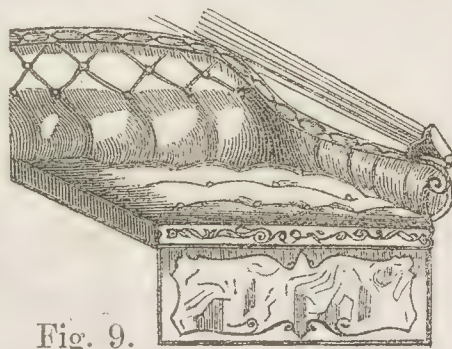


Fig. 9.

keeping it smooth and to its place. I have just completed a trimming of this style and a splendid affair it makes. But its application is confined of course to the very finest quality of work, as it is too expensive for the ordinary class of buggies. Fig. 9 is an illustration of a very neat, yet gaudy style of trimming for pannel seat buggies, with stationary calash top. It is trimmed with blue *brockatel*; leather front to the cushions after the manner above described. The apron to the seat is made of a rich piece of Brussels velvet carpet, in color to harmonize with the *brockatel*, enclosed by a fancy border of black patent leather, stitched thereon with white thread, after the style represented in our engraving. This is not an *extravagant* trimming, but when done, has the appearance of being very costly, and therefore is admired by all who are looking out for something on the fancy order.

TO CARRIAGE TRIMMING MANUFACTURERS.—I would suggest to the Coach Trimming Manufacturer the propriety of making leather fronts of various styles, sizes and patterns, for cushions,

which I am well convinced would meet with a large and profitable demand. The first quality might be made of two colors of leather, letting the main piece be black, on which would be stitched a piece of red, yellow, green, or any other color, with various ornamental figures cut through, which would admit the ground piece to show through. Second quality—one plain piece of leather (any color) with some neat figure stitched thereon, and third quality merely stamped with a variety of figures. As this style of fronts is taking the place of lace, I am well convinced, from personal observation, that the manufacture of those parts by some one in that business, would be richly rewarded, for every coach-maker would prefer buying them to making them himself. First, because he could obtain them ready made, cheaper than he could get them up himself; and again, there are hundreds of carriage makers who cannot obtain at all times the kind of workmen who are capable of *doing* such work.

If any one is desirous of undertaking the enterprise, and will address a letter to me, (care of C. W. Saladee, Columbus, Ohio) I will furnish any variety of designs for the same that may be desired—for which I will charge nothing only the draughtsman's fee, which will be but a trifle.

I shall be happy to have my brother trimmers contribute any thing which they may deem of any service to this department of the Magazine. By so doing, they will enable their humble servant to add additional attraction to a journal so worthy of their encouragement, and it is my intention (as well as that of the editor) to make this department of great practical importance to the carriage trimmer. I am prompted to call on my friends of the craft to lend their aid in behalf of this object. All communications for this department will be directed to the editor of the Magazine.

Painting Department.

For the Coach-Makers' Magazine.

PAINTING—BY A PAINTER.—NO. 4.

PURPLE.

There are several colors that come under this head, but what is most generally recognized as this color, is made, by mixing one part of Prussian blue with two of rose pink, or an inferior article of lake. A common purple may be formed, by using vermillion, in connection with the blue.

These form about all the colors that are in practical use among carriage painters; although there are many others that I have not mentioned, because they are so seldom used.

I probably may have no better opportunity than the present for making a few remarks about paint brushes; but before I proceed further, I will reply to your correspondent "J. P. H.," of Ohio. He says that in adopting your plan of boiling the linseed oil, that a large quantity of settlings in the form of broken flax seed and other impurities was the result; and hence from this fact he concludes that the boiled oil should take the precedence. Now, if the gentleman will only try the experiment, give it only one half a fair shake, I think he will side with me in my views. Take two buggy bodies, paint one of them with unboiled oil, from the priming up, where oil is to be used, and paint the other with the boiled oil. If they are equally exposed to the weather, a few months will suffice to show the effect of substituting the boiled for the unboiled oil.—That painted in the last mentioned manner, will in nine cases out of ten become dull, and the varnish lose its gloss, in a very short time. Now, the simple heating of the oil I will admit, can do no harm, (when the heat is not carried over 140—50 Far.) as that would be sufficient to settle all dirt and impurities to the bottom; even this, however, is unnecessary, when a good article of oil is used. I speak thus decidedly against the use of boiled oil, because I have given it a thorough good test in the course of my jour experience; but do not wish to be understood as one "mighty and wise" in these things; I merely offer the result of my experience to the craft, and should any remarks I may make, benefit them in the least, my object is fully attained. Our excellent Magazine offers its columns to any one who may wish to benefit the craft; so if any think I am mistaken in my theories, I should be glad to hear from them. As to your correspondent's remarks, as to putty, the reason of the swelling is, that the timber of which the

bodies are made, is not well seasoned; I can offer no other reason. In a case of this kind, I should recommend the use of whiting when mixing the putty, using about three ounces of it to a pound of dry lead; as the tendency of the first to shrink, will counteract the forcing of the putty out of the holes when the wood shrinks as it dries and seasons.

But, about brushes: Without a good set of brushes, no one would pretend to finish a fine job of work, and the difficulty of procuring a good set is a matter in which all will agree. Many a painter have I come across who thought more of some pet varnish brush than he did of his wife (almost)—and where will you not find a "painter cub" who does not look forward with delight, to the time when his new varnish brush will be a "bully one." In England—and indeed it is quite customary for a painter to carry his "kit" with him in this country—no painter is looked upon as anybody, upon his entrance in a new shop, unless he has a full assortment of both color and varnish brushes; even the apprentices have their "full setts," and I well recollect how they expressed themselves about that "brushless Yankee" painter as I was.

Round brushes are generally used for heavy work; such as "priming," "rough stuff" and lead color, from the fact that they will hold more paint than the flat or varnish brushes; but the best plan is to use the latter, as with a little care and pains they may be wore down to an excellent color brush, while a new set may take their places in the priming, &c. Many painters wear their varnish brushes to a fine even point, by using them a short time in rough stuff, care being taken never to let them remain in the paint after using, but suspending on a wire in a cup of water; although the latter takes more time, it is much the best plan. A round brush in my estimation is far inferior to the flat one, for being made round, they are by no means adapted to the laying on of a flat surface; and we always find that they are used in one way for the purpose of wearing them flat, which goes to prove that the flat or varnish brush is preferable. In selecting a brush, observe in the first place, whether the bristles are strong, and next, whether they lay closely together, and fast bound with the string that fastens them to the stocks or handles; for, if the hairs or bristles are weak and flabby, it is almost impossible to put on a smooth, even coat of color, and if the bristles do not lay close together, they will spread and draw over the surface of the work, giving it a streaked look. But the worst fault is not being fast bound to the handles; for, in that case the hairs will come out when you are using the brush, and the job will be strangely ornamented with straggling hairs being seen buried in the color or varnish when dry.

Brushes are very liable to burst loose from the binding when the water gets to the heel of them, as a precaution against which, I always give them at least two coats of priming around the binding, and opening the hair to each side, pour about a tea spoonful of varnish down against the butt of the handle, leaving them stand a few days in an inverted position to get dry; by doing this, it will be found, prevents any such thing as bursting. When using camel hair brushes, they should always be suspended in the water, (for this kind of brush oil is far preferable, as water tends to twist and kink the hair.) Some painters suspend all their brushes, and it is much the best plan, takes but little time, and then they never get soiled with the dirt and settleings that collect in the bottom of a brush keg. Water that contains lime in solution, as well water, is far preferable to rain, or river water for keeping brushes in, from the fact that the rain or river water has a tendency to soften the hair of the brushes, while that of the well water is *vice versa*. Pencils should come next, but I shall leave them until I come to treat on striping and ornamenting.

VARNISH AND VARNISHING.

Much has been said and wrote about the heading of this subject, but still there is a wide margin left that could be profitably handled. Strictly speaking, any substance, whether dry or liquid, that being spread over the surface of any body, and has the effect of giving it a brilliant appearance, is a varnish; but the term is only applied to those substances that have the effect of being durable and lasting. The foundation of all varnishes are gummy and resinous substances, and the only liquids that can be combined with them, so as to form varnishes, are oil and spirits of wine; but that prepared from the latter article is seldom if ever used in carriage painting; in its place as a solvent, turpentine is used. The prin-

cipal gums and resins used in the manufacture of varnish are copal, shell lac, seed lac, mastic gum elastic, dragon's blood, and caoutchouc. The number of different varnishes that could be obtained by various methods of mixing the substances from the materials from which they are manufactured, is almost endless; and it would be folly and a mere waste of time to attempt anything like a description of them; the more especially at the present time, when varnish can be procured in almost any town. Many years ago, no one professed to be a master workman who was not capable of making their own varnishes; while at the present time not one of every ten, knows what materials or even what process is used in the manufacture of it.—For a varnish to be really good, it should be clear, brilliant, transparent and durable; but the durability of varnish is what constitutes its greatest excellence. That manufactured in England by Hoares & Son stands preeminent as the best in use as a body varnish, from the fact of its flowing evenly and smoothly over the surface of the work; but is only useful as a finishing varnish, as from the length of time that it takes to dry thoroughly, a succeeding coat could not be applied without rendering the work liable to crack. We sometimes find varnish, after having been applied to work a short time, turn to a pale, dingy white, and become mealy; so much so, that by taking the finger nail we can scratch it off, or with a piece of sand paper remove the whole of it. Now, there are several reasons for this, but the principal one is, that turpentine is used in conjunction with the varnish when laid on. In cold weather the varnish becomes thick and difficult to use, and some use turpentine to reduce it to a proper consistency, instead of gently heating it over a fire; but it is a very bad plan, and the varnish must be of a superior quality, if the effects of mixing turpentine with it, does not manifest itself in a very short time. Some varnishes get thick and gummy by age, but when it becomes necessary to thin them, it should always be done sometime previous to using them, at least a month, and occasionally stirring them so as to thoroughly mix the turpentine. As to the age (that is the proper age) of varnishes, before they are suitable to use, there are many opinions. Some think as the French think of wine, the older the better. Others hold that the *new* is superior to the *old*; giving as their reasons, that it goes farther and works smoother. But I think that the preference should be divided between both parties. For old varnish: it has the objection of being difficult, almost impossible during cold weather to lay on a smooth even coat, and it takes much longer to dry. It cannot be denied, however, that it preserves its gloss and brilliancy much longer than the new; while in using the *new* varnish, it is easy to lay on, works free and smooth, but seldom keeps its lustre for any length of time. In my opinion, varnish that has been made from a year to fifteen months, is far superior to either of the previous; in that time it acquires sufficient body without the toughness, as some term it, of very old varnish, and will keep its gloss almost as well as the oldest brand.

In this country there is some difficulty of ascertaining the age of varnish, as two-thirds of the manufacturers never put the date on their varnish; but in England this is considered a matter of much importance, every barrel or can being dated as to when it was made, and it is a plan that should be universally adopted. But as this subject may be intruding, by its length, on the space devoted to some other subject,

I remain,

B. Mc.

LINES

Respectfully inscribed to the COACH-MAKERS' ILLUSTRATED MONTHLY MAGAZINE,

By MRS JULIA S. DECALL.

All hail to thee, Mechanics' friend,
With thy dress so like a bride;
With thy gem-bespangled colors,
And air of conscious pride.

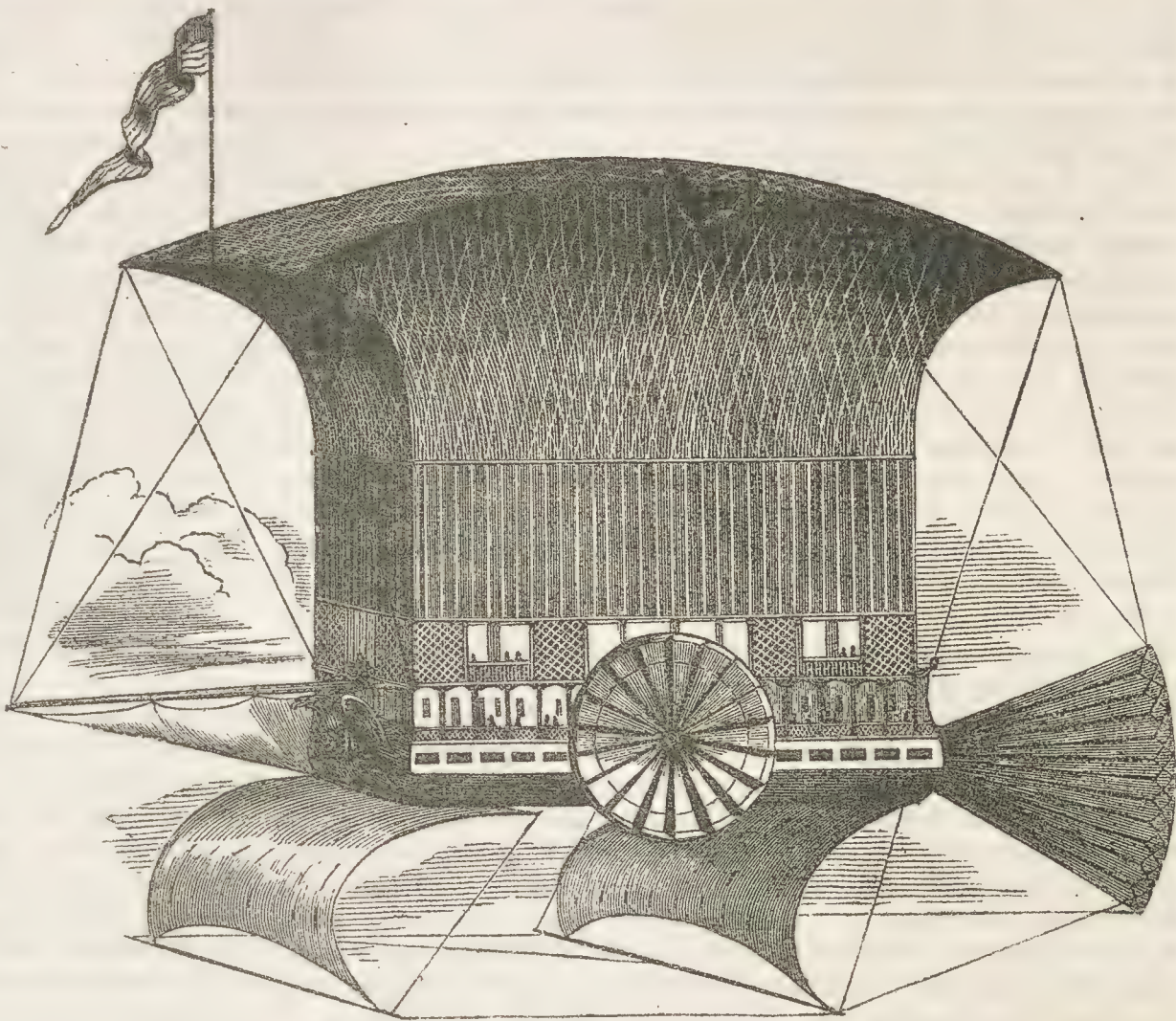
With thy band of starry writers,
And drawings rich and rare,
Thou'rt the leading star for thousands;
None can with thee compare.

SUCCESS TO THEE, fair monthly,
May you ever be fair as now;
May not one star fall from the coronal
That encircles thy glorious brow.

Canada East, Feb. 4th, 1856.

NOWLAN'S AERONAUTICAL SHIP.

The figure of this aeronautical ship is a parallelogram, 360 feet long, 26 feet wide, and 36 feet deep, formed of sheet copper framed with tubes to give strength and lightness. It is capable of carrying 1000 tons burthen. The promenade or upper deck reaches from end to end, and is tastefully arranged for the comfort of passengers. The second deck is arranged for the grand saloon and private sleeping rooms for first class passengers. The third deck is for steerage passengers and luggage, and contains the engine room and storage for the cargo. Underneath all is a gun-wale running round, 6 feet wide and 10 feet deep, between the sides of which is an open space of 14 feet, through which the sails are worked. Ascent or descent is effected by a circular movement performed by means of the helm and paddle-wheels, which have a power of ascending in a spiral form as the tubes are inflated by the engine, and descending similarly as the gas is contracted by the same means. The vertical gas wrappers running from end to end are confined by light net-work, 25 feet high, and 360 feet long. They stand 18 feet above the upper deck and communicate with the gas pipes by tubes. The engine of 16 horse power is worked by a galvanic battery. The sails, eight in number, are suspended from the bottom of the lower deck, and are worked from it.



With this arrangement, the circuit of the globe can be made in 24 hours! incredible as it may seem to those who do not reflect that the earth revolves in its diurnal course in that space of time, and that at a certain height above the earth's surface the atmosphere is fixed and stationary. To reach any given point, therefore, it is only necessary to elevate this ship to that height, and after propelling it by means of wheels, sails, and helm, to the latitude of the place required, wait for it to move to the ship's position, and descend to it as the sky-lark descends from his high attitude to his nest and his mate below.

The dangers and calamities that almost daily occur in the ordinary means of traveling by sea and land would thus be avoided, and the awful sacrifice of life and property attending them be done away with.

The necessity for more speedy, safe, and economical modes of transportation of persons and property is acknowledged by all, and the inventor of this arrangement feels assured that his device will be found to answer all these requirements more perfectly than any previous one, and will effect all he claims for it.

EDITOR'S TABLE.

APRIL,

1856.

A STARTLING INVENTION.

Quite early this morning, (March 4th,) we were very abruptly aroused from our study, by a loud knock at the door of our sanctum, and without waiting for a response, the door opened, and in stepped a Western Jonathan, (we say Jonathan, because he was about six feet five, wore a pair of drab pants, which we thought would have fitted him much better when his legs were six inches shorter; his understandings were snugly secured within a pair of boots whose ample soles seemed to indicate that his residence was in some of the western regions where the productions of the tanner was the staple of the country. His vest, which was of scarlet velvet, numerously dotted with white, appeared quite in accordance with the modern style of short waists, but somehow vest and pants were never united, and if so, the union was dissolved, for now a wide space of linen was visible between their respective extremities. His coat was of a light brown, and beautifully ornamented with brass buttons; and his Fulton-like head of genius, was surmounted by an article of beaver, which for the multiplicity of fur, and beauty of form, was hardly surpassed by any thing in the hat line that ever before graced the human brow. With a bow which the most refined Frenchman might envy, he at once introduced himself as Mr. _____, of _____, New Hampshire. This latter sentence convinced us that we had for once mistaken a Hoo-

sier for a live Yankee. His first inquiry was for that Coach-makers' Magazine man, wot publishes a book for carriage-makers. Informing him that we were authorized to attend to the business of that gentleman, he proceeded to business without further ceremony.

"Well, squire, I would have you unerstan, that for the last two years I've bin studying eaout an invention wot every man wants wot rides in a carriage. N-e-o-u-w, supposin" (he continued, putting himself in the attitude of a modern tragedian, his face the very picture of a man who appreciates his great worth as the author of some startling invention, by which the whole human race are to be benefitted,) "you had a wife and family—some nice afternoon they get into your carriage, and as they are driving along, not thinking of danger, the horse all teu woust takes fright and runs off. Now, Squire, would'nt it be a great invention if sunthin could be fixed to let the horse go to the d——l, and leave the carriage standing still on the road?"

After having with some difficulty pressed down the safety valve to our laughing organ, we finally managed to answer the honorable inventor, by remarking that such an improvement would certainly be very valuable.

By this time he was resting on the floor, (on one knee and foot,) unrolling a long kind of package, which proved to be a whiffletree with all the tacklings necessary to accomplish by one jerk, the great object first mentioned.

"There, squire," said he, (handing us the wonderful discovery, and still maintaining his half-kneeling position,) "there is the thing wot will do it."

The proposed improvement consisted of two hooks in each extremity of the whiffletree, which being so connected to springs, and the latter to a strap which was to enter the front of the body, by drawing the strap, could be turned so as to throw the traces out of said hooks instantly, and in justice to our friend we must say, that it was the most complete arrangement of the kind, we have ever before seen.

"Well, squire, you have looked at that about long enough," he continued, (somewhat impatiently,) "and what is your candid opinion, now?"

"Well," said we, "since you have *supposed* a case respecting the operations of your invention, you will of course allow us the same privilege, as a means of illustrating our *candid* opinion respecting it."

"O, sartin, Squire," he replied, "sartin."

"Then, sir, allow me to ask, about how *fast* do you suppose a carriage would be likely to run when a horse is frightened, and running away with it?"

"Why, Squire, now yer talkin' about right. That's jist the question I've been axin' on 'em a meny a time. When I meets them 'ere kind 'o fellers, wot can't see through nuthin, I jist tell 'em a carriage behind a right bad skeered hoss, would go jist about as fast as a rail road car arter an injine, say *forty* miles an hour, and there," he added, "is the beauty of my invention."

"Very well, sir; now supposing you were seated in my carriage; it having your improvement attached; driving along at a moderate rate, and the horse should suddenly and unexpectedly take fright, and start off at the rate of *forty* miles per hour; what would you do in that case?"

"Pull the strap, Squire, of course—sartin;" was the ready response, as he raised up and looked us full in the face.

"And let the horse go?" said we.

"Sartin; of course—let the horse go to the d——l."

"And, sir, have you any idea where you would go in a carriage under such headway, and without any means whatever to guide it? How long do you conceive it would stay in the road? Supposing still further, that at the instant of detaching your horse, the vehicle was passing over some embankment, or along the road, where on one side or on the other, there was an abrupt descent; how long do you suppose the carriage would maintain a perpendicular position? Now, as you have let the horse go to the d——l, what, I ask, do you *candidly* suppose would become of you, carriage and invention under such circumstances?"

By this time Yankee's inventive expression assumed that of deep thought and disappointment, and looking very much like a gent caught in a trap of his own construction. With both hands rammed deep into his pockets, his large blue eyes resting first on us, then the floor; next on some picture suspended on the wall, and finally on us again, where they remained, as he replied—

"W-a-l-l n-e-a-o-u, Squire, yer gittin kind 'o *pinty*, that's a fact. Then yer think it won't go, no how?"

"Never."

"Now, didn't yer jist say here that it would be a bully good thing, eh?"

"Yes," we replied, "if it would leave the carriage standing *still* on the road, as you said it would do; but we are at a loss to know how you contrive to make the carriage remain motionless the instant the horse is detached therefrom, and especially when the carriage would be going at the rate of *forty* miles per hour. But to deal fairly with you, let us suppose again, that the carriage did not

attain but half that velocity, is it reasonable to believe, that an ungovernable vehicle, even at that rate would be safe for the space of a single rod? Surely not; because (even on a level road) the front wheels would be likely to cramp under the body for want of something to govern the shafts, and going at the rate it in all probability would as the frightened horse started off, it would upset in spite of any thing you could do. If it would not do so, *chance* only prevented it."

After some little talk about fixing a kind 'o break to stop the carriage instantly, this bright star from the East disappeared, with the promise to honor us with his light of genius again, as he returned from Louisville, Ky., next week.

We have seen several improvements (so called) to detach the horse from the carriage as he is in the act of running away or cutting up some unpleasant dido. The application of such a fixture to a carriage, might be well enough for those who set but little value on their necks or limbs, but for all such as prize these latter *implements* in themselves or respective families, have no kind of need for such an invention. For example, a lady, (who we must say is invariably excited when the least danger presents itself,) is driving a horse she is somewhat fearful of. Now, having this life-preserver on the shafts, it would doubtless be paramount in her mind to every thing else; consequently she would resort to it at such a moment perhaps (owing to the locality of the road) which would result in a most frightful accident, when, if she would *not* have had this infernal machine to her carriage, and would have paid proper attention to her horse, might have been avoided. The only improvement that can ever be made in this part of the carriage, and for the purpose stated, will have to be something in the shape of a *prudent driver*, and one who will hold a *steady* rein under any or all circumstances.

A BRIEF CONTRAST OF THE OLD AND NEW MODES OF TRAVELING.

In the spring of 1669, a daring innovation was attempted. It was announced that a vehicle, described as the Flying Coach, would perform the whole journey between sunrise and sunset. This spirited undertaking was solemnly considered by the heads of the university, and appears to have excited the same sort of interest which is excited in our own time by the opening of a new railway. The vice chancellor prescribed the hour and place of departure. The success of the experiment was complete. At six in the morning the carriage began to move from the front of All Souls' College; and at six in the evening the adventurous gentlemen who had run the first risk, were safely deposited at their inn in London. The emulation of the sister university was moved; and soon a diligence was set up which in one day carried passengers from Cambridge to the capital. At the close of the reign of Charles the Second, flying carriages ran thrice a week from London to all the chief towns. But no stage coach, indeed no stage-wagon appears to have proceeded farther north than York, or farther west than Exeter. The ordinary day's journey of a flying coach was about fifty miles in the summer; but in winter, when the ways were bad and the nights long, little more than thirty. The Chester coach, the York Coach and the Exeter coach generally reached London in four days during the fine season, but at Christmas not until the sixth day. The passengers, six in number, were all seated in the carriage, for accidents were so frequent that it would have been most perilous to mount the roof. The ordinary fare was about two-pence halfpenny a mile in summer, and somewhat more in winter. This mode of traveling, which, by Englishmen of the present day,

would be regarded as insufferably slow, seemed to our ancestors wonderfully and indeed alarmingly rapid. In a work published a few months before the death of Charles the Second, the flying coaches are extolled as far superior to any similar vehicles ever known in the world. Their velocity is the subject of special commendation, and is triumphantly contrasted with the sluggish pace of the continental posts. But with boasts like these was mingled the sound of complaint and invective. The interests of large classes had been unfavorably affected by the establishment of the new diligences; and, as usual, many persons were, from stupidity and obstinacy, disposed to clamor against the innovation, simply because it was an innovation. It was vehemently argued that this mode of conveyance would be fatal to the breed of horses, and the noble art of horsemanship; that the Thames, which had long been an important nursery of seamen, would cease to be the chief thoroughfare from London up to Windsor and down to Gravesend; that saddlers and spurriers would be ruined by hundreds; that numerous inns, at which mounted travelers had been in the habit of stopping, would be deserted, and would no longer pay any rent; that the new carriages were too hot in summer and too cold in winter; that the passengers were grievously annoyed by invalids and crying children; that the coach sometimes reached the inn so late that it was impossible to get supper, and sometimes started so early that it was impossible to get breakfast. On these grounds it was gravely recommended that no public carriage should be permitted to have more than four horses, to start oftener than once a week, or to go more than thirty miles a day. It was hoped that if this regulation were adopted, all except the sick and lame would return to the old modes of traveling. Petitions embodying such opinions were presented to the king in council from several companies of London, from several provincial towns, and from the justices of counties. We smile at these things. Our descendants, when they read of the opposition offered by cupidity and prejudice to the improvement of the 19th century, may smile in their turn.

When the railroad from Boston to New York was first opened a number of passengers gathered, that a hundred horses could not draw, and who a few years before would have had to ride night and day for half a week to accomplish the journey, are now to be carried from one city to the other in 8 hours. What a contrast! The scene presented by the starting of a train is an exciting one, and bewildering by the number of persons involved in its vortex. Yet everything is admirably systemized, and punctuality necessarily enforced. The old stage-coach used to wait for tardy passengers; the modern railway train knows no such amiable weakness. It is inexorable as fate. The cars, like tide and time, wait for no man, woman or child. The "all aboard!" of the conductor is as imperative as the laws of the Medes and Persians, and when the bell rings off goes the train with the speed of a rocket and the noise of thunder. Doubtless many of the adventurers in that untried mode of locomotion, made their wills and settled all their worldly affairs before embarking for the trip. The sad experience of later years has shown that such preparation is not always unnecessary. To say nothing of what they have added to the wealth of the community, railroads have completely revolutionized the social life of New England. They have introduced into its most remote portions the refinement, elegancies and solid advantages of the city. Over these iron conductors, literature, art and music have sped with the speed of lightning. The dweller of the Green Mountains and the resident of the West have become neighbors. The settler on the Aroostook need no longer be a stranger to the Berkshire mountaineer. And, while to the rural citi-

zen this new mode of intercourse has tended to brighten his existence, to link him in closer bonds of kindness and interest to his fellows, expanding his mind and filling it with cosmopolitan ideas, it has poured many a ray of sunshine into the dark places of the city. It has enabled families, confined before to murky and unhealthy haunts, to make familiar acquaintance with that nature which they had only known in books. Hundreds of families have availed themselves of this cheap and rapid mode of transportation to remove to the suburbs, where they now enjoy pure air and bright sunshine, and have little patches of flowers and vines clustering round their own little homes. It has invited forth the opulent, who have crowned the adjacent hills with princely villas and liberal culture. It has redeemed from idleness and desolation thousands and thousands of acres of waste wilderness, causing it to blossom like the rose. Say not that railroads are unpoetical, or, if unpoetical themselves, acknowledge that they give birth to poetry and beauty. If the scream of the whistle and the thunder of the train invade some spot hitherto sacred to elegant retirement, we must remember that for every individual annoyed by its invasion, the locomotive unseals the eyes of thousands to the holy and happy influence of nature in her ever-varying yet ever-glorious phases.

MORE ABOUT WHEELS.

One of our western subscribers writes us as follows:

"For the last eighteen months I have had considerable trouble with my wheels.—1st, in procuring the required article of timber, and also in having them made as they should be. There are few men indeed who can make a *good* wheel, and if I was sure I could buy wheels *ready made* that would be the right thing, I should rid myself of this trouble, and purchase all my factory consumes. I am aware you gave Messrs. Royer, Simonton & Co., of Cincinnati, Ohio, a very favorable notice on their make of wheels, but at the time you made such notice, you had hardly time to test the different sets you were using sufficiently, and now having used them over nine months, you know whether they are all you expected them to be. I therefore wish to know by return mail whether you would still recommend them as before, &c. &c."

When our friend (who wrote the above as a *private* letter to the editor of this journal) comes to see it in print, he may think we have taken more liberty with his private affairs than was bargained for; but when we inform him that other of his brethren have written us, in substance the same thing, asking us for our *candid* and *private* opinion concerning the wheels made in Cincinnati, Ohio, and also when we assure him that our *private* opinions, are, without respect to persons, *publicly* expressed, whether favorable or otherwise, we trust he will not think us imprudent in making public use of his private documents, and especially when by so doing we can answer all who have written upon this subject of wheels, at one and the same time, and here we must but repeat what we have said to you before, viz: that the wheels made by Messrs. Royer, Simonton, & Co., at Cincinnati, Ohio, can be relied upon as being the *very best wheel* which can be made. The every day usage of these to our own vehicles, justifies us to speak thus confidentially; beside, we have not as yet heard of a single complaint from the many different coach-makers who have been using them the past year.

TRIMMING DEPARTMENT.—In our next we will give the trimmer some good designs for stitching ornamental figures on boots, aprons, fronts to cushions, &c.

We have now on hand some beautiful French drawings, which we intend to illustrate in the Magazine very soon.

CORRECTION.—In executing the drawings for Brown's Patent Carriage, (as illustrated in the March No.) our draughtsman committed an error in representing the perches to be *ironed* and with bolts through them, which is not the case to any carriage Mr. Brown has ever made with his patent springs applied. We are very sorry for the mistake, but we trust this timely correction will in part set all to rights, and in a short time we shall have occasion to illustrate one of these carriages again, when we hope it will be *correctly* done. We are pleased to learn that this patent is received with marked favor wherever it is being introduced. Mr. Brown is indeed worthy of success, for his patent is really an *improvement* in the construction of *light carriages*.

ANOTHER.—On page 27 (in communication on axletrees, vol. 2, Coach-makers' Magazine) for *contract* read *counteract*. This slight error in our compositor puts entirely a wrong construction upon the meaning of the *author*.

SMITH'S NEWARK VARNISH MANUFACTORY.—The above establishment is located in Newark, N. J., and is conducted by Mr. S. P. Smith, who commenced the manufacture of varnishes in his present location in 1834, since which time he has increased his business from year to year, to such an extent, that at the present time he employs a capital of \$60,000, and the most extensive facilities now used for the manufacture of varnishes. The quality of the article produced by this gentleman must be of a superior kind, else he would not have that extensive patronage he now enjoys throughout the United States, Canadas, and Mexico. We take pleasure in referring our readers to his advertisement in this No.

R. H. BROWN, of Cleveland, Ohio, has sent us two drawings for the Magazine. One is an improved style of Concord Wagon, and the other is a *new and original* style for a slide seat carriage with door in the side, same as a *barouch* body, to which he applies his improved arrangement for slide seat body, as illustrated in Oct. No., 1855, but as they came too late for this No., we must lay them on the table for the next issue, when we will be happy to present them to our readers.

SPROUT, BURROWS & CO.

The above manufacturers of Sprout's Springs, are now extending their operations to a standard that will entitle them to the honor of being the most extensive Spring makers in this or any other country.

We are happy to speak of the success that is attending the worthy efforts of these gentlemen. Surely no inventor is more entitled to the favorable notice of the public than the *one* who devised the *Sprout Spring*, as it is *certainly* among the *best* improvements ever made in the construction of carriages, the truth of which requires but a trial to substantiate beyond all manner of doubt.

Messrs. S. B. & Co. have ordered a heavy supply of Spring Steel from England, and which is the only material that will be employed in their works.

A few days ago, while in Cleveland, we noticed that our old friends, (Messrs. John Tennis & Co.,) were still driving the Coach Hardware and Trimming business on the most extensive scale. We have before spoken of this fine establishment, and it gives us pleasure again to repeat, that it vies with the *first* class houses in this country. Few gentlemen are *more* worthy of public favor than Mr. Tennis, of Cleveland.

Contributors to this Number,

"Lines inscribed to the Magazine," MRS. JULIA S. D'CALL, C. E.
 "DESIGN FOR IRONING CARRIAGE PARTS," Geo. Summers, N. Y.
 "TRIMMING DEPARTMENT," - - - D. McLane, "
 "EDITORIAL CHIP BASKET," - - - E. M. Stratton, "
 "FASHIONABLE HARNESS—No. 1," - Rob't M. Selleck, "
 "CHAPMAN'S SHAFT FASTENER AGAIN," W. S. Chapman, Ohio.
 "FRENCH BRETT," - - - G. W. Stevens, N. Y.
 "SALADEE'S AMERICAN COACH," - - - The Editor.
 "O G BUGGY," - - - "
 "PHÆTON, WITH TURN
 OVER SEAT," - - - "
 "SALADEE'S YANKEE PHÆTON," - - - "

ANSWER TO CORRESPONDENTS.

C. H., of S. C.—We have never discovered the imperfection you refer to, in the Concord Spring. If properly constructed, the vibration is extremely easy and pleasant. If, however, the spring should be made too long, and there would be, as you fear, too much vibration, it could be very easily remedied, by the plan you propose, of applying India rubber blocks between the body and the spring, as shown in your sketch. But you will find they are not called for.

W. R. B., of N. Y.—You ask how to varnish a body without moles and specks in it when dry. 1st—be sure your varnish is pure and clean. 2d—the brushes with which it is applied, do. 3d—keep the cup containing the varnish clean, and not exposed to dust, and 4th, have a close clean room in which to apply the varnish, but before doing so, always dampen the floor, so that no dust will be rising (therefrom while the varnish is being applied and drying, and you will find that the work will be smooth and free from all the blemishes you speak of. For an answer to your last inquiry, apply to Queen City Varnish Company by letter.

A. N., & Co., of Ia.—We think that there is a saving of at least \$10 in a light buggy with the application of Brown's patent spring, as an advantage over the elliptic, and besides, it makes it much lighter; there is no question about that. We would advise you to apply to Mr. Brown, of Dorchester, Mass., direct.

S. S. L., of Mass.—Mr. R. H. Brown, of Cleveland, Ohio, does not claim the slide-seat body as new, or as his invention; but what he does claim, is his application of the seats to the body, in the manner and for the purpose described in the Oct. No. of Mag., Vol. 1, and the arrangement (if rightly constructed) is certainly a good one. He is now manufacturing these bodies for the trade, with irons attached and properly fitted.

P. M. T., of Ohio.—We saw one of the proprietors of Hayden's Patent Wheel, some days ago, who informed us that the machinery for manufacturing their wheels was about complete, and that he hoped they would be able to commence manufacturing in course of two or three months, and perhaps sooner. The cost of these wheels, including axles, will be from \$16 to \$20.

O. B., of Mo.—The Clinton Shaft Connection and Coupling is undoubtedly a good improvement, and would recommend you to try them. However, we cannot endorse the arrangement of the springs to this carriage, but the above improvements are all they claim for them.

C. T. S., & Bro., of N. Y.—We hardly know what you mean by "Spring Lock Axle." Mr. A. E. Smith, Axle manufacturer of Bronxville, N. Y., has a patent on what he calls the "Spring Axle," which is doubtless the one you refer to. It is so constructed, that by means of a spring attached to the back part of the hub, and a rotary groove in the shoulder of the axle, the wheel will secure itself as it is pushed up against the shoulder of the axle arm, and cannot be removed without the application of a peculiar wrench made for that purpose. If this is the kind of axle you inquire after, Mr. Smith can furnish you with the article.

WANTED IMMEDIATELY.—A first class carriage-painter and a carriage-smith; those fully competent to serve as foremen, to whom good wages and a permanent situation will be given. Address E. K. Wisell, Warren, Ohio.

WANTED IMMEDIATELY.—A first-rate carriage-painter and carriage smith, to whom good wages and a permanent situation will be given. Address WM. EDMONDS, Tuskegee, Alabama.

STUB SLEIGH RUNNERS FOR CARRIAGES.—The heavy and continued falls of snow the past winter brought into existence several forms of short runners which were found very convenient for placing under carts, wagons, Buggies, Coaches, &c. The compactness with which they can be stowed away during the summer in cities, where storage is an important item, will greatly recommend such appliances over the old plan of long runners. It is surprising to us that some Yankee did not earlier make a discovery of this advantage.

Editorial Chip Basket.

For Saladee's Magazine.

BY E. M. S.

This fellow picks up chips, as pigeons peas.—SHAKSPEARE IMPROVED.

EXPORT OF CARRIAGES, &C., FROM SAN FRANCISCO.—Among the articles of export from San Francisco, according to the shipping list of Jan. 3d, we find five wagons, and seventeen packages of carriages, which fact is presumptive evidence, that they do not sell as high there as some would have us believe. We fear *that* market will *never* again prove as good for carriages as it once was.

THE FIRST CARRIAGE BUILT IN THE UNITED STATES OR NEW ENGLAND.—Can some of our intelligent readers give us the date when the first carriage was constructed in our country? Such information (describe it if possible) we have no doubt would very much interest our readers, and exceedingly gratify our assistant.

A THOUSAND YEARS HENCE.—Should the prophet in a late No. of *Harper's Magazine* prophecy truly, our mystery, trade and occupation will have undergone a remarkable change, and the improved carriage wheels about which our friends Hayden, Tilton and others are making so much noise just now, will be among the things of the past, and carriage making will have assumed a *lofty* position, indeed, beyond the ordinary dreams of every day life. After telling us that "all short distances," such as ferries, were now traversed by bomb-carriages, (whew!) fired from huge mortars, he asks his friend, (imaginary of course) this question—

"I suppose," said I, "that you use railroads still?"

"Yes," was the answer, "we have railroads certainly, under ground, though they are falling into disuse. Formerly, railroads were built on the surface of the earth, but after a few centuries' trial they were abandoned, as they had multiplied to such an extent, that they covered the whole face of the globe.—No room was left for agriculture. Then subterranean railroads came into use. They answered pretty well, as they traveled at the rate of 500 miles an hour, and accidents rarely happened; but steam balloons are fast superceding them.—Now, the mail-balloon starts daily from Peerless for the principal cities of the world. Its time is—New-York, one hour, thirty-two minutes; Pekin, forty-seven minutes; Timbuctoo, one hour and a quarter; the City of Caoh, in the Sandwich Isles, fifty-eight minutes; Icetown, on the North Pole, two hours and a half. Rich men have their own coach and buggy balloons, but the competition between the passenger lines is so great, that most of the companies pay people a trifle to go by their line."

TREES.—"Those excressences of nature grown by Providence to pay the debts of gentlemen." Reader! will this "chip" bring to your mind any *particular* case?

LOOKOUT FOR HIM.—Our readers in New York and vicinity are cautioned against a certain "gentleman ob color" whose ivory shown in striking contrast with his ebony countenance, as he obtruded his person within our work-shop the other day, and with the politeness peculiar to a "nigger" informed us that Mr. Loyd at No. —, South Fourth Street, Williamsburg, wished us to call early next morning on the above young sporting gentlemen, who he represented as wanting a fine 160 pound varnished "trotter." On calling as requested, we found—we had been sold! It all at once flashed in our brain that when about to leave us, he put this question—"Boss, have you got any loose change about you, you could give a feller?"

GENIUS, has been defined as the power of making efforts.

PROSPECTUS FOR VOL. 1, 1855, OF THE COACH-MAKERS' ILLUSTRATED MONTHLY MAGAZINE.—REPRINT—FOURTH EDITION.

Every individual who is a subscriber to the present volume of this journal, very soon perceives that without the first volume his work is incomplete, and therefore does not possess to him that practical worth it would be susceptible of doing were it complete from the first No. Owing to this fact, a demand has been created for the back numbers, (among those who have but commenced with the present volume,) so great, that we are induced to offer this Prospectus, and propose to reprint a fourth edition as soon as we shall receive 1000 subscribers for the same, (of which No. we now lack but one half,) and if all those who have already made inquiries concerning the back numbers will send in their names, the 1000 can be made out immediately, and we will forthwith proceed to reprint a large edition. The volume will be neatly bound in muslin, with morocco gilt back and corners, and will be furnished to single subscribers at \$4.00, or ten volumes for \$30.00, free of postage to any part of the United States. The money to be forwarded as soon as we notify the subscribers that the volume is complete, and ready for circulation, or to the Post Master on delivery. At present we want only your names and orders for the vol. 1.

OUR PRINTING ROOMS.

Advertising is one of the grand secrets to success in any or all mechanical pursuits, and the individual who in this age of printing neglects to give that publicity to his business which the times demand, is standing in his own light, between himself and that very dollar for which he is so eagerly contending, and in no branch of mechanism is it more called for than among the coach-makers. Every proprietor who is doing a tolerable business, should have a standing advertisement of his factory with correct illustrations of the different kinds of vehicles he is manufacturing, or prepared to build to order.

Having now over two hundred fine engravings of all the latest fashions of carriages, we propose to furnish each proprietor who is desirous of getting up a good advertisement, with a chart neatly illustrated with the different styles he may select from our stock of engravings, with his card and such other matter as he may desire to have printed in the centre, and the whole enclosed in a beautiful border, which he can have suspended in all public places, and send a copy of the same to any person from whom he wishes to solicit an order for a carriage. What would attract more attention than to send to the livery keeper, into the farmer's family, or indeed to any one who you think would be likely to want a carriage, than one of those charts which at once represents the various kinds of vehicles you can furnish them? Surely nothing; therefore it will be of more benefit than any other way by which you can advertise. We will furnish such charts for from \$10 to \$50 per hundred copies, owing to the size, the number of engravings, number of colors in which they are to be printed, &c. &c. Orders solicited.

OUR REGISTER, OR AN IMPORTANT SYSTEM FOR SECURING A SITUATION AND OF OBTAINING HANDS.

Proprietors in our department are often in need of help, and are frequently put to great expense, inconvenience, and loss of time in obtaining them, and there are hundreds of journeymen who are at times in want of situations, and many of them are compelled to waste their limited means in search of employment.

A great number of our subscribers have lately inquired of us whether we could not establish some system through which all such wants might be immediately supplied, and at the same time obviate the trouble above referred to. Now that such a system would be of vast importance and highly beneficial to the craft, will be universally admitted, and after a due consideration of the subject, we are induced to adopt the following plan, by which both proprietor and journeyman will be equally benefitted.

Viz: All journeymen out of employment, or likely to be so in a short time, or such as are desirous of changing their location, can, immediately upon such conclusion, address a letter to this office, stating the same, and such other facts as they may see proper, with a reference to their present or previous employers, and their names (with date, &c.,) will be placed in a register kept expressly for that purpose; and all proprietors in want of hands will likewise address a letter to us, stating the kind of workman wanted, and all other particulars necessary, and by return mail the said party will receive a copy of all the names on our register (of that class wanted) with address, references, &c., when a correspondence can be opened with one or all of the names desired, and a workman immediately procured; and in case no workman of the class inquired after, is found in our register, the wants of such proprietor shall immediately be made known through the Magazine without additional charge; and all journeymen thus registered, as soon as a situation has been obtained, will advise us of such fact without delay, stating by whom they are employed, which item will be placed in the register in connection with their names, for future reference.

TERMS OF THE REGISTER.—All journeymen sending their names for the Register, will enclose 25 cents in postage stamps, and each proprietor is required to enclose \$1, for which he will receive a copy of the Register as above, or his wants advertised in the Magazine, so that in either case he shall be sure of hearing from the kind of workman wanted.

OUR DRAWING TABLE.

We have now secured the exclusive services of a carriage draughtsman, who, from his long experience and close application to the art, stands unequalled by any other of the same profession in this country. Having been engaged in all the principal European cities, and for the past year in the city of New York, he has acquired a knowledge of the various styles of carriages among the different nations, which but few possess, and consequently is capable of representing a greater variety of style in his designs than could otherwise be expected.

From our Drawing Table the craft can obtain a sketch of any peculiar design or fashion for a vehicle, which they may desire to have, aside from what they see illustrated in the Magazine. Almost every mail brings us an application from some part of the country, for a design of a certain kind of carriage, which is peculiarly adapted or limited to a certain purpose or a certain location, (and which peculiarity forbids its appearance in the Magazine.) One, for example, wishes a certain style of Band Wagon; another a design for a Peddler's Wagon for this or that purpose; another a Hearsie; an odd kind of Coach; and others again, a design on a large scale, for a Factory, &c.; all of which can now be furnished at this Office, on the shortest notice, and on the most reasonable terms.

☞ Drawings executed either plain or colored.

THE DECAY AND PRESERVATION OF
TIMBER.

BY SAMUEL CLEGG, JUN.

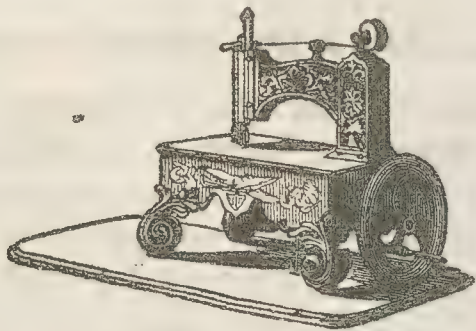
Decay may occur in the growing tree, and is indicated by the death of the main top, and which is generally the result of the infiltration of water into the interior of the tree, by natural cracks, &c., which gradually affects the internal part of the wood, and occasions its decomposition. This extends from the heart outwards; the external or young parts, resisting for a longer time, and hence those shells of ancient trees which we frequently meet with. The progress of this decay, undoubtedly, continues after the tree is cut down and applied to use, the order of it being still the same, the annual rings successively becoming decomposed according as they are near the centre. The whole process is slow in its operation, often requiring forty or fifty years to destroy a beam of moderate dimensions. This kind of decay is prevented by felling the tree before it shall have passed its prime.

The other kinds of decay, to which timber is liable, are termed the *common rot*, and the *dry or sap rot*.

Common rot is occasionally by alternate exposure to moisture and dryness, and to heat and cold, therefore frequent at the part where a pile is between wind and water, or when a beam enters a wall, or at joints in framing. The progress of this decay is from the outside, hence covering the wood with paint, tar, &c., and renewing it when required, is the remedy. Duhamel found that covering *green* timber with paint or pitch hastened its decay, but painting increased the durability of well-seasoned timber. When only the external part of a beam has been seasoned, and the sap or vegetable juice (for it may not be *sap*) has not been evaporated from the internal parts, the rot will be an internal disease; hence paint prevents the evaporation of the contained moisture, and hastens decay. The same reasoning applies to the *charring* of timber, which is a very common practice for poets, &c.

The causes of *dry* or *sap rot* are inherent in the timber, and only require the concurrence of a few external conditions to come into action. Sapwood is charged with gum, starch, or sugar, with a large proportion of albumen, and other fermentable materials, a large quantity of water being also present.

MICHALS, LEAVITT & CO.,

Manufacturers of Stitching Machines for Carriage
Work of every description.411 BROADWAY, N. Y. }
GORE BLOCK, BOSTON. }

OUR MACHINES ARE PARTICULARLY ADAPTED TO CARriage stitching, Hemming, Binding, &c. making a seam exactly alike on both sides, and using Cotton and Linen equally as well as Silk. There is a saving of 50 per cent. in thread by using our machines, over the loop stitch machines, and we make a seam that will NOT RIP OR PULL OUT. We have received the premiums at all the principle Fairs throughout the country, and respectfully request those about purchasing machines to call and examine them in operation. They do the work much neater, and as much in one hour as can be done in two by hand. Every Machine is warranted and orders promptly filled.

[April 1856-1y]

On and after April 1st, 1856, I will be located at St. Louis, Missouri, and design continuing my business as heretofore. To those who have so kindly favored me with their orders, I would return many thanks, and in future offer them and all others my services, feeling assured from the past, that I can purchase stock for them and charge a reasonable commission, and be equally as cheap as they can go east and select for themselves from the different manufactories. I shall continue to keep on hand a small stock of the leading articles, such as Enamelled, Bow, and Dash Leather, Enamel Cloths, Carriage Bands, and such other Goods as cannot at all times be got on short notice in the East. I shall also keep a supply of No. 1 Springs, manufactured for me expressly and bearing my brand. They will be fully warranted equal to any made.

My main business will be receiving orders, or by samples, that can be seen at my office. Orders so selected by my customers will be forwarded directly to the Eastern manufactories, and when filled will be forwarded by the manufacturer directly to the parties who want the goods. Shall continue to sell as heretofore, at manufacturer's prices, and add 3½ per cent. commission for my trouble, and if time is wanted, will add 5 per cent. additional for four months. Bills of \$500 and over, will be divided into three equal payments, at four, five, and six months, payable in all cases by draft, with current exchange on New York. I need hardly point out the advantage to the buyer, as they can easily see there is a certainty of getting exactly what they order, if it is possible to get it, as there is not that inducement on my part to substitute something near what is ordered, that there would be, provided I had, as is customary, a large stock of goods on hand, at the same time they are always certain to get their stock at the manufacturer's lowest prices.

Goods ordered by me for parties living at points that it will be necessary to ship first from New York and then to the parties ordering, will be charged the freight and insurance from the East to St. Louis, whatever it may be. I shall visit my customers either in person or by agent, hereafter, to solicit orders at least twice each year, and shall fully warrant all goods equal to sample. Orders for price lists by mail shall be promptly attended to. My Office will be at Jno. S. Thompson, Esq., No. 30 and 32 Second Street, St. Louis, Mo.

Yours, &c.,

HIRAM A. PRYOR.

HIRAM A. PRYOR,

WHOLESALE DEALER IN

Saddlery Hardware, Coach Trimmings, &c.

NO. 30 & 32 SECOND STREET, ST. LOUIS, MO.

THE PRICES BELOW ARE SUBJECT TO ANY FLUCTUATIONS THAT MAY OCCUR.

Newark Enamelled Lea. large hides per ft.	16½
" " " med.	16
" " " fancy colors "	18
" " " sil. & g'd br'z "	20
" Collar and Railing Leather "	16½
" Dash Splits, "	10
" Enam'd Duck, 50 in. extra, pr yd.	50
" Drills, "	40
" Canvass, 5-4 "	28
Can furnish other cloths from 5 to 10 per cent. cheaper, if wanted.	
'Fitch's' New Haven Springs, per lb.	10
Extra for French Head, if wanted, per set,	25
Rowland's Philad. Springs, per lb	11
Extra, for French Heads, per set,	12½
Less 5 per cent. on Rowland's Springs,	
Silk Lace, per yard,	58
Worsted Lace 2½ in. "	20
Worsted and Silk Lace, 2½ in. "	25
" " 3 " "	30
" S. and P. " "	4
Silk " "	5
Less 15 per cent. on all Laces,	

IVE'S CONNECTICUT AXLES, VIZ :

Bolt Mall, 1½ in.	per set, 4 00
Inside screw, 1½ in.	" 4 00
Outside " "	" 4 50
" " long shank "	" 5 50
Iron Nut Taper Axles, 1½ in. sol. col.	" 3 00
Sil. Cap Nut "	" 3 25
Iron Nut, H. P. "	" 3 25
Sil. C. " "	" 3 50
Iron Nut Taper " case hard "	" 3 75
Sil. C. " "	" 4 00
Iron Nut H. P. " "	" 3 75
Sil. C. " "	" 4 00
All other sizes in proportion to 1½ in.	
Stump Joints, ½ in.	per doz. 1 12½
" " 9-16 " "	" 1 25
" " ¾ " "	" 1 37½
Less 5 per cent. on the above Joints.	
Stump Joints, ½ in. extra,	per doz. 1 25
" " 9-16 " "	" 1 37
" " ¾ " "	" 1 50
Pittsburgh Springs, 10 "	per lb. 10
Axles, 6½ "	" 6½
Less 5 per cent. on Pittsburgh Springs and Axles.	
Brass Boston Bands, x. lt.	per set 33
" " light "	" 44
" " common "	" 50
" " heavy "	" 75
" Philad'a " x. lt. "	" 44
" " light "	" 63
" " common "	" 75
" " heavy "	" 1 00
" Jersey Mail " light "	" 63
" " common "	" 75
" " heavy "	" 1 00
Screw Cap, Japanned, Brass Fronts, "	" 1 25
" " all over " "	" 1 75
" " Japanned " "	" 2 25
Silver Boston Bands, x. lt. "	" 1 50
" " light "	" 56
" " common "	" 64
" " heavy "	" 72
" Philad'a " x. lt. "	" 1 00
" " light "	" 64
" " common "	" 83
" " heavy "	" 1 00
" Jersey Mail " light "	" 1 38
" " common "	" 85
" " heavy "	" 1 00
" Reflector Mall B's. rosette centre, "	" 1 38
" plain " "	" 2 25
" " "	" 2 00

4 in. and less, of all the above Bands, same price, except Reflector rosette centre, sizes from 3¼ to 4 in. 15 cents extra. Patent Leather Pressing Machines, 2 pairs, dies, roller and stamps, per set, 16 00. Patent Leather Pressing Machines, 4 pairs dies, roller and stamps per set, 22 00. Hand Presses, 2 sets dies, roller, and stamps 7 60. Knob Hole Punches, 75. Less 10 per cent. on the above Presses.

CARRIAGE BOLTS.

¼ x 1½	\$2.00	\$2.10	\$2.20	\$2.30	\$2.40	\$2.50	\$2.60	\$2.70
5-16 x 1½	\$2.30	\$2.40	\$2.50	\$2.60	\$2.70	\$2.80	\$2.90	\$3.00
5-16 x 3½	\$3.10	\$3.20	\$3.30	\$3.40	\$3.50	\$3.60	\$3.70	
¾ x 2	\$3.25	\$3.35	\$3.50	\$3.63	\$3.75	\$3.88	\$4.00	\$4.13
¾ x 4	\$4.25	\$4.50	\$4.75	\$5.00	\$5.25	\$5.50	\$5.75	\$6.00

TIRE BOLTS.

3-16, all sizes	\$1 03
¼, Square Head and Counter-sunk same price as Carriage Bolts. Prices above are for 100 bolts. 20 per cent. off all the above bolts. Plant's Connecticut Bolts cost about 33 per cent. less than Philadelphia.	
Axle Clips, Nos. 0, 1 and 2, per doz.	50
" " 3, Less 20 per cent. on clips.	56
Shackles, Clip Connections, per doz. pr.	12 00
" " No. 1, " "	10 00
" " 2, " "	9 50
" " 2, cheap, " "	7 20
Pole Eyes, " 1, 2, Less 15 per cent. on Shackles and Pole Eyes.	4 00

NEWARK MORTICED HUBS.

6 in. and less, per set,	75
6½ " "	87
6¾ " "	1 00
6¾ " "	1 00
Delaware Spokes, an extra article, 1½ in. and less, "	2 55
Best Eastern Malleable Iron, per lb	10
Ivory Head Nails, No. 1, per gro.	29
" " 2, " "	31
" " 3, " "	37
Ivory Pull-to Handles, per pr. from 1 10 to 2 00	
" Inside " " 1 00 " 1 20	
" Knobs " " 2 50 " 3 00	
" Head Screws, " "	3 25
Silver and Brass, Plain and embossed, Props and Nuts, pr set	18
Silver Chased Props and Nuts, " "	1 50
Jap. Sil. and Brass Lining Nails, per paper,	6
Sil. Band Nails, solid heads, per gro.	23
Brass " " "	25
Brass and Silver Stump Joints, per doz.	4 50
Blake's Japanned Knobs, No. 3, per gro.	55
Brass Capped " 2 & 3, " "	50
Silver " 2 & 3, " "	80

Also, Cloths, Damasks, Paramettas, Curtain Silks, Worsted and Silk Fringes, Holder Tassels, Hammer Cloth and Rug Fringes, &c., of all colors and qualities; Oil Cloth Carpet all widths, Varnish, Tacks, Curled Hair, Silver Lamps, Pole Yokes, and Hooks, &c., &c., and everything else used by Carriage Manufacturers. The above prices are nett cash, also freight added, at the rate of 1¼ cts per lb., and a commission of 3½ per cent. If time is wanted, an additional 5 per cent. is added for 4 months. [June 1855.]

TO COACH-MAKERS.

THE SUBSCRIBER WOULD RESPECTFULLY INFORM YOU that he has had twenty-five years' experience upon carriage parts in several of the best coach factories in the State; and that in compliance with the solicitations of a number of his former employers, he has taken a shop on the corner of Chapel and Franklin streets, in New Haven, where he will manufacture to order from the best of timber and workmanship, and at satisfactory prices, crane neck C springs, Coach, Coachee, Balance, Long Shaft, Tilbu-

ry, and every variety of heavy and light carriage parts.

Particular attention will be paid to drafting and getting up pat-

terns to suit any desired style of body.

Also, Pumb Handles, Brakes, Blocks, Bars, and every variety of Coach Carving done with neatness and despatch, and warranted to suit the most fastidious. Please give us a call.

J. L. MONSON,

Coach Carver and Carriage Part Maker, corner of Chapel and Franklin sts. New Haven, Ct. Aug. 1855.

Unmorticed Hubs, \$1 to \$3.
Effort will be made to keep a supply of the above articles always on hand.
N. B.—The highest price paid for Oak and Hickory Spokes and Plank. None but the best quality of timber will be received.
Aug. 1855.

PLATE XIII.

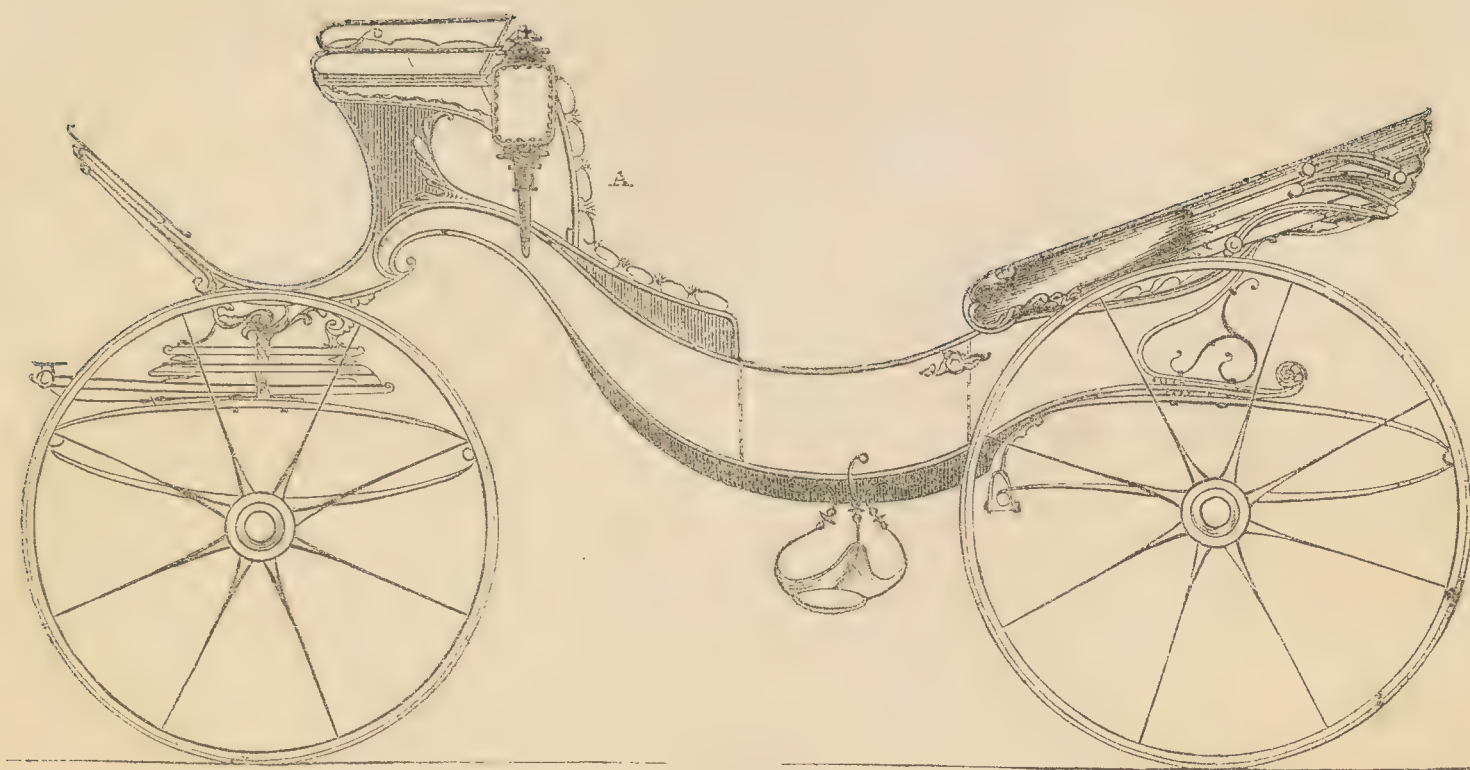


Fig. 29.—Crane Neck Brett.

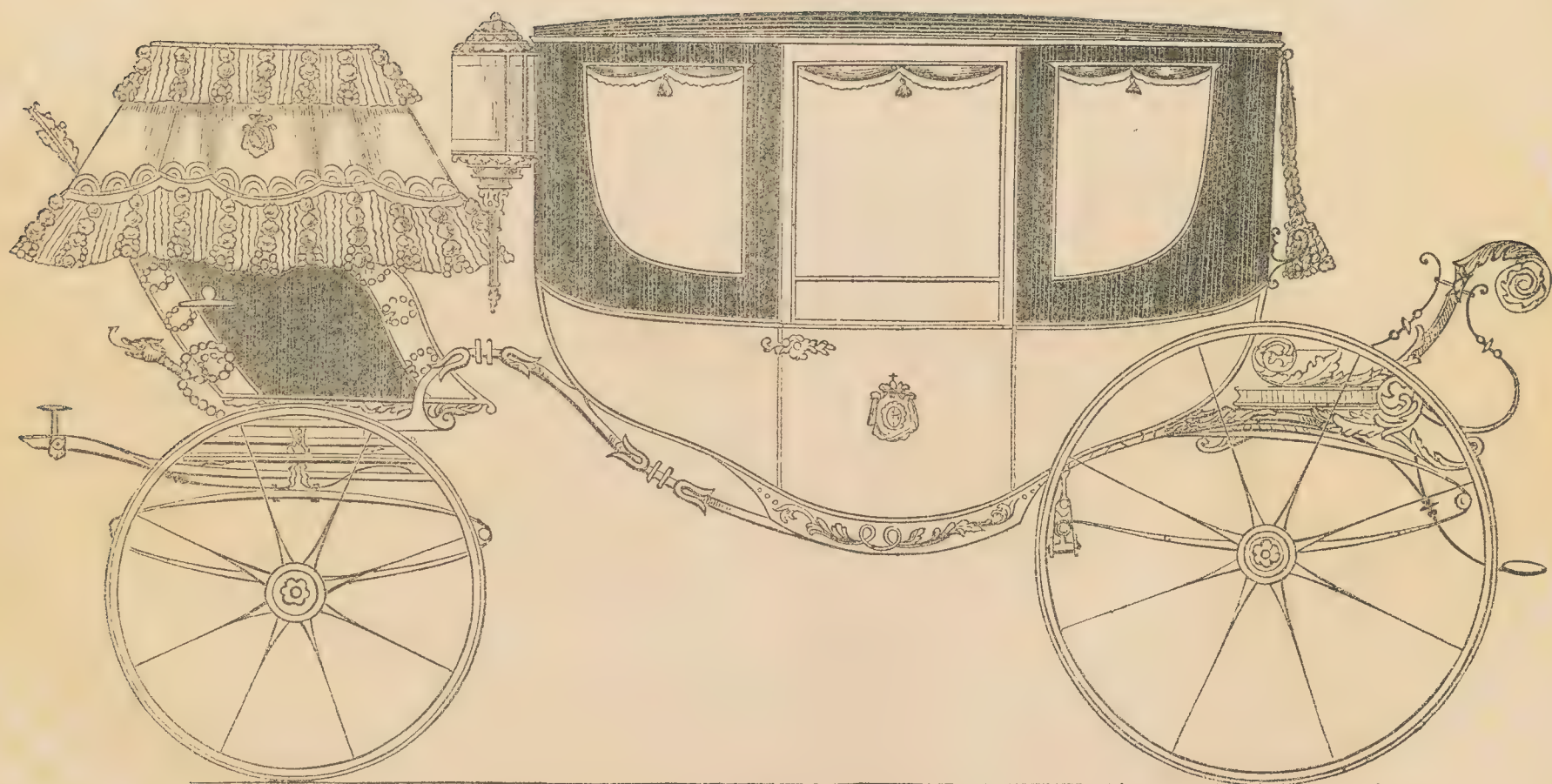


Fig. 30.—French Crane Neck Coach.

PLATE XIV.

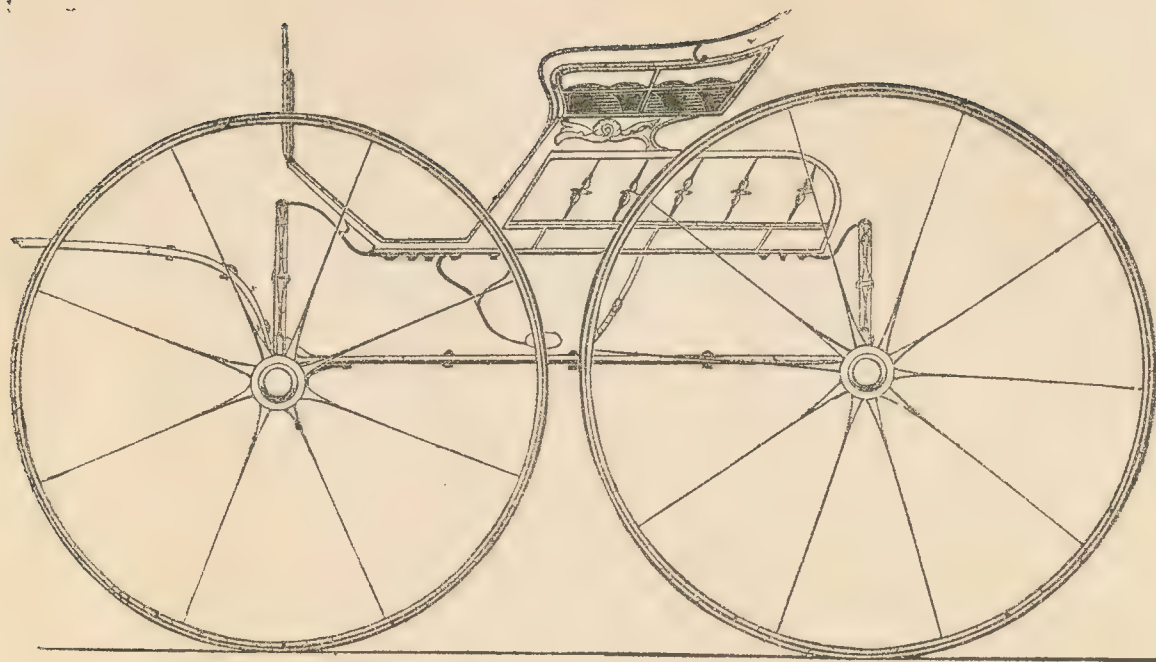


Fig. 31.—Rahway Buggy.

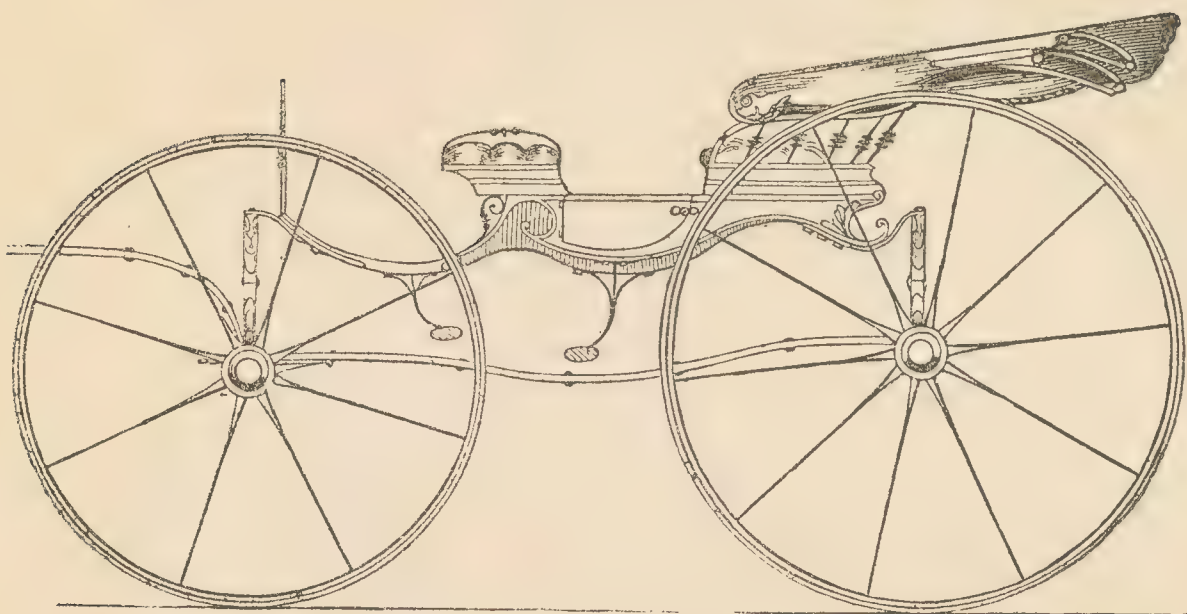


Fig. 32.—Sliding Seat Barouche.

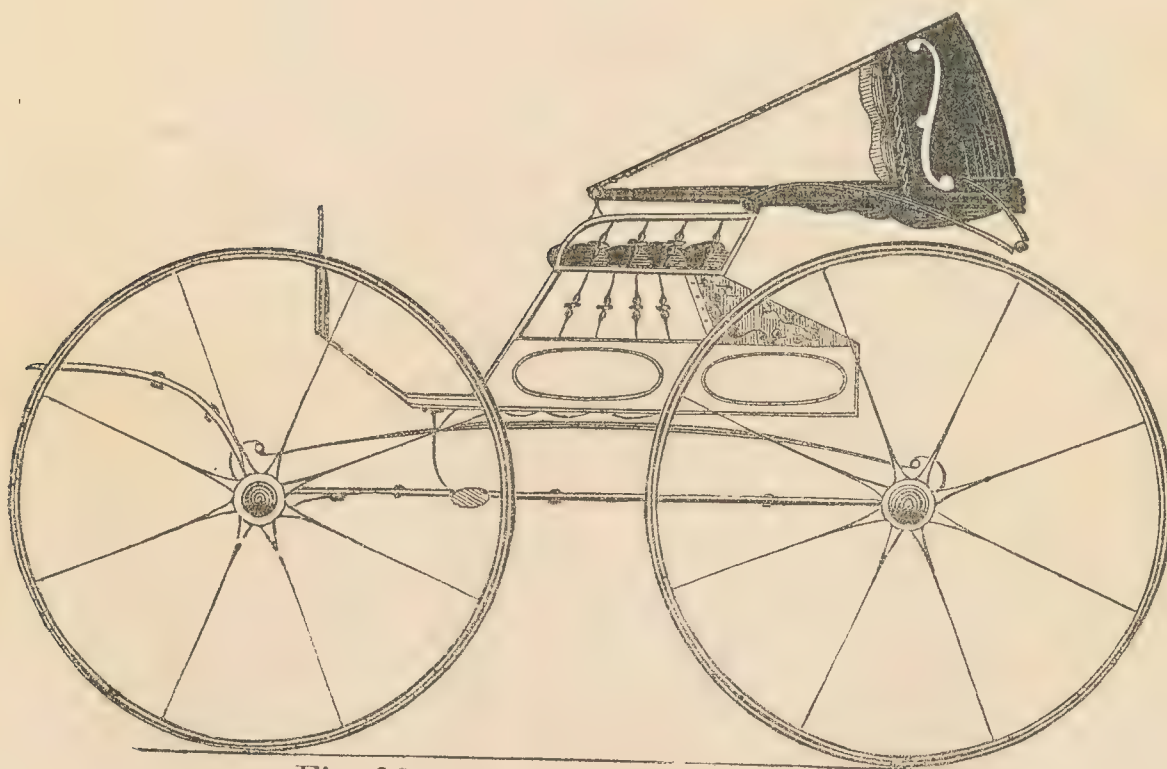


Fig. 33.—Brown's Concord Wagon.

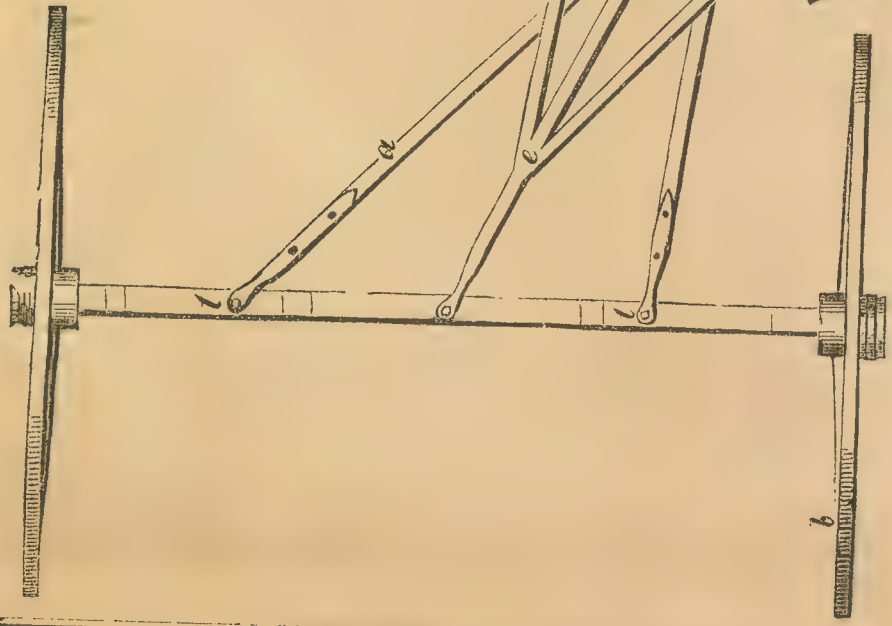


Fig. 2.

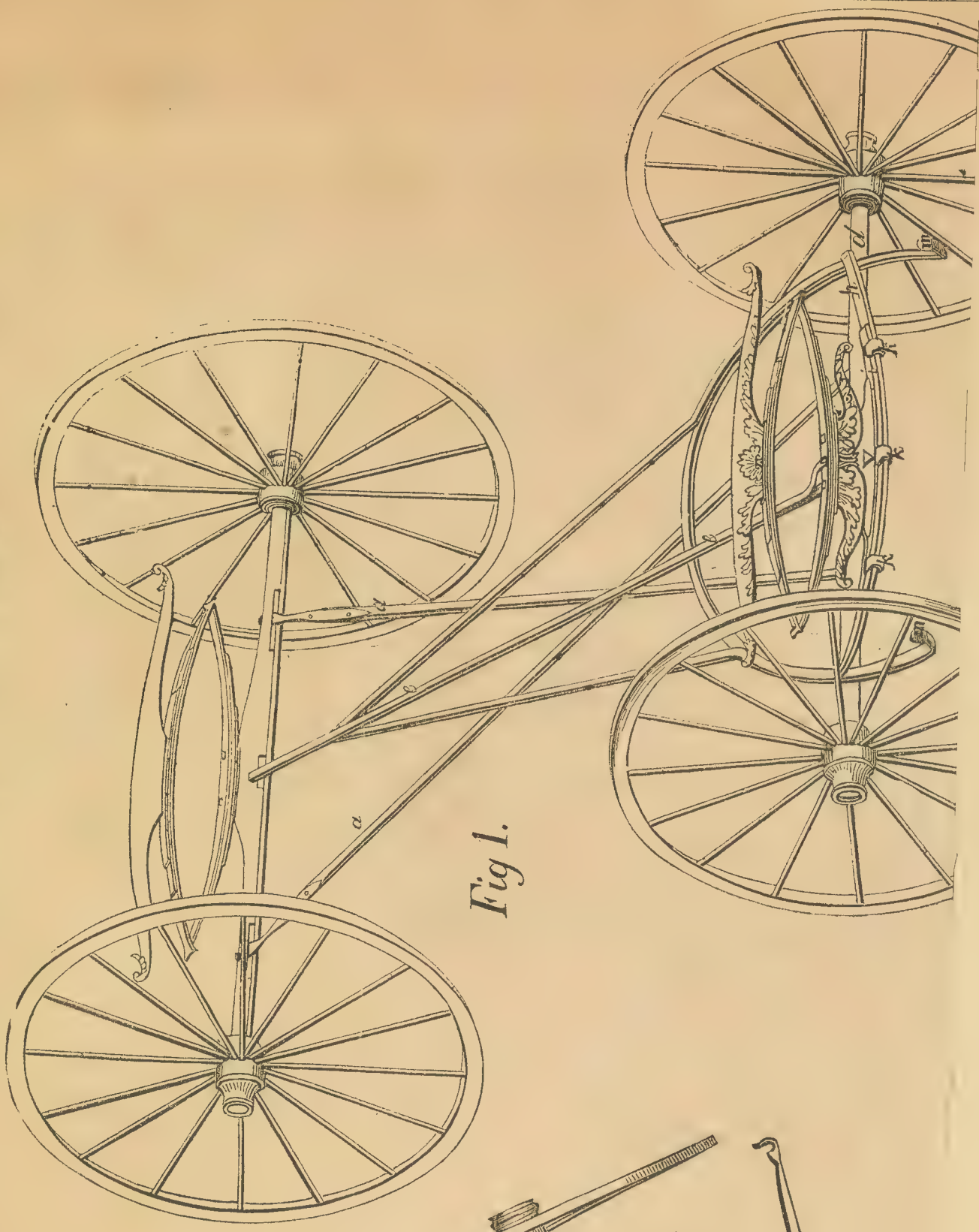


Fig. 1.

Fig. 2.

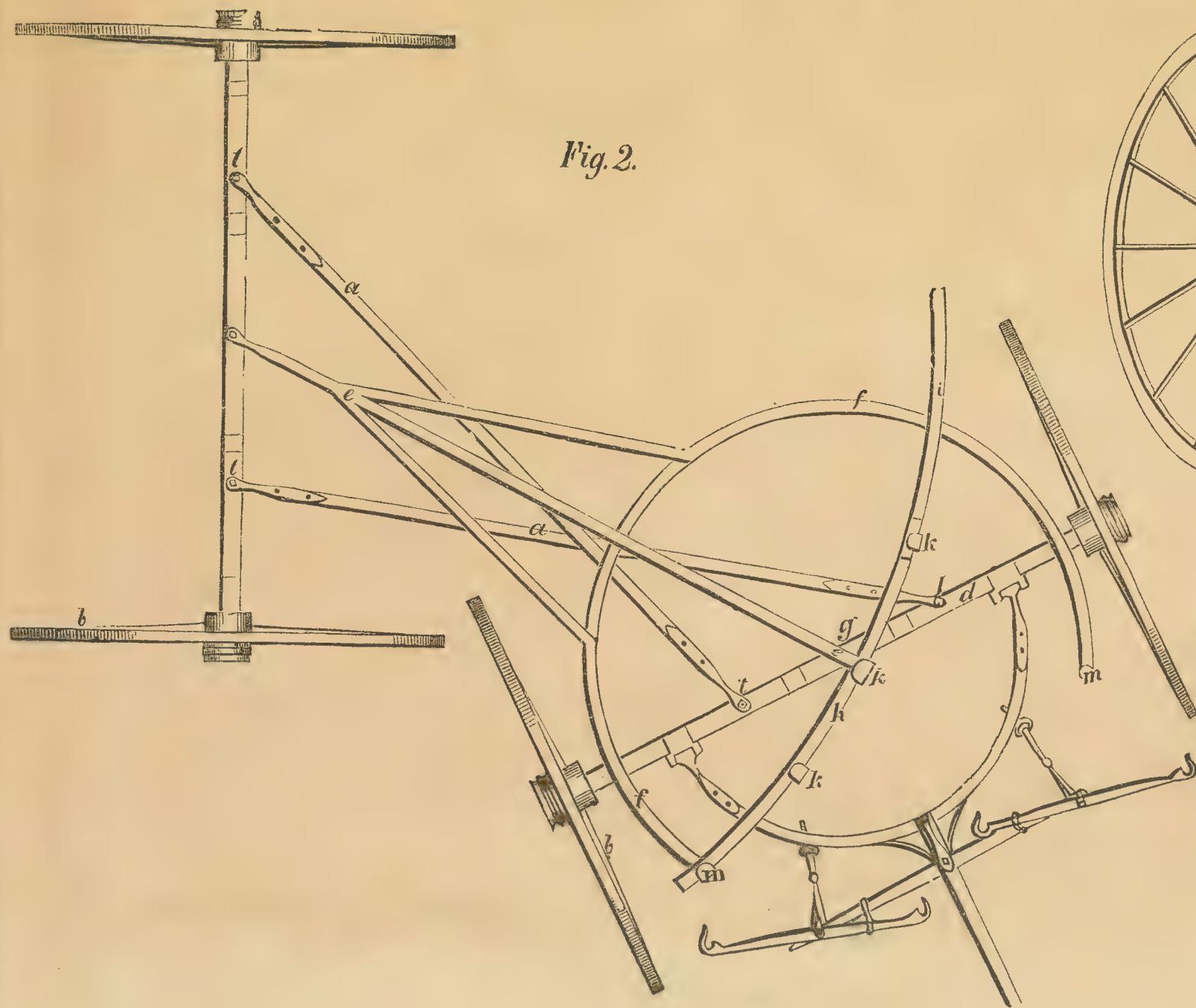


Fig 1.

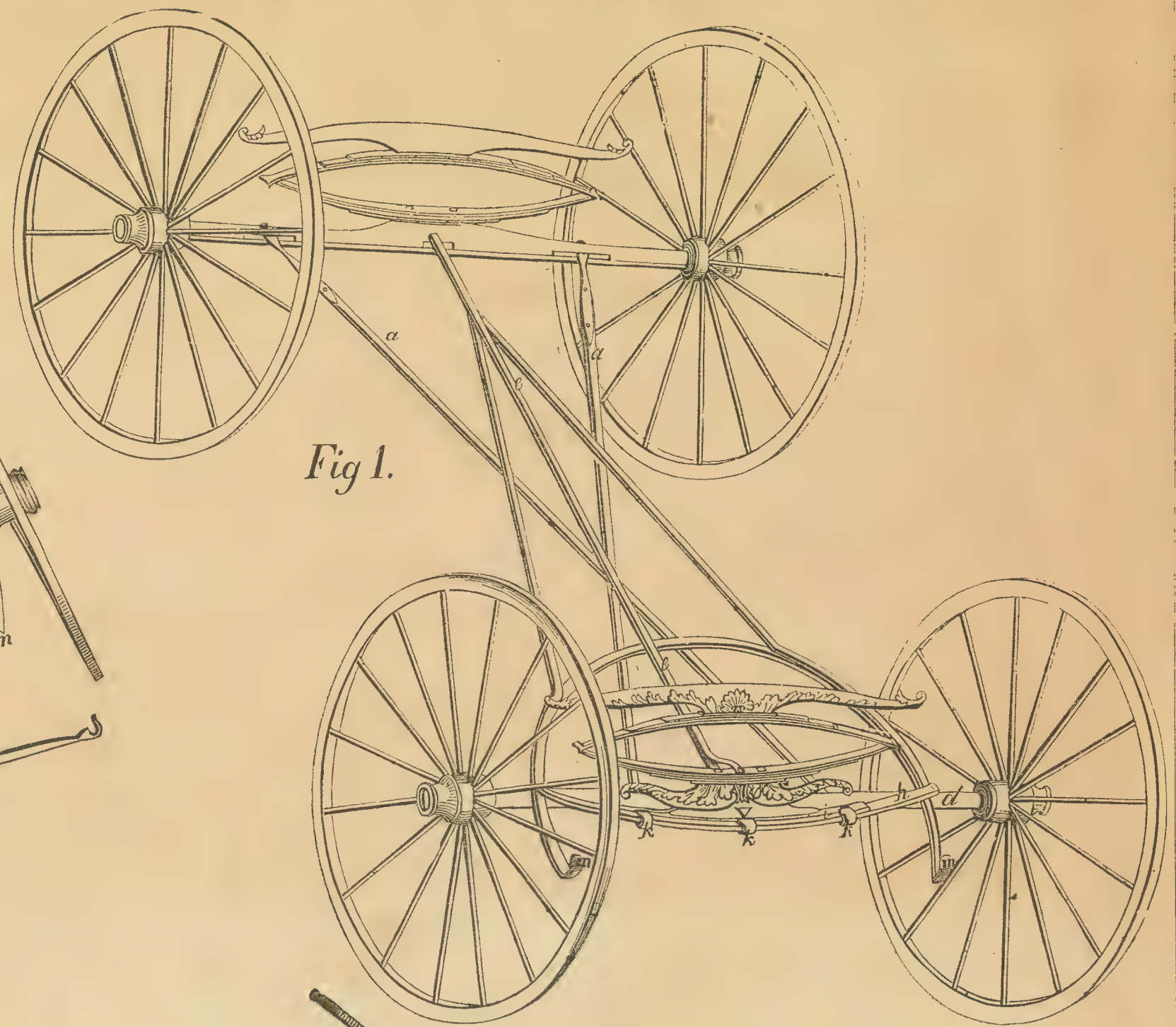
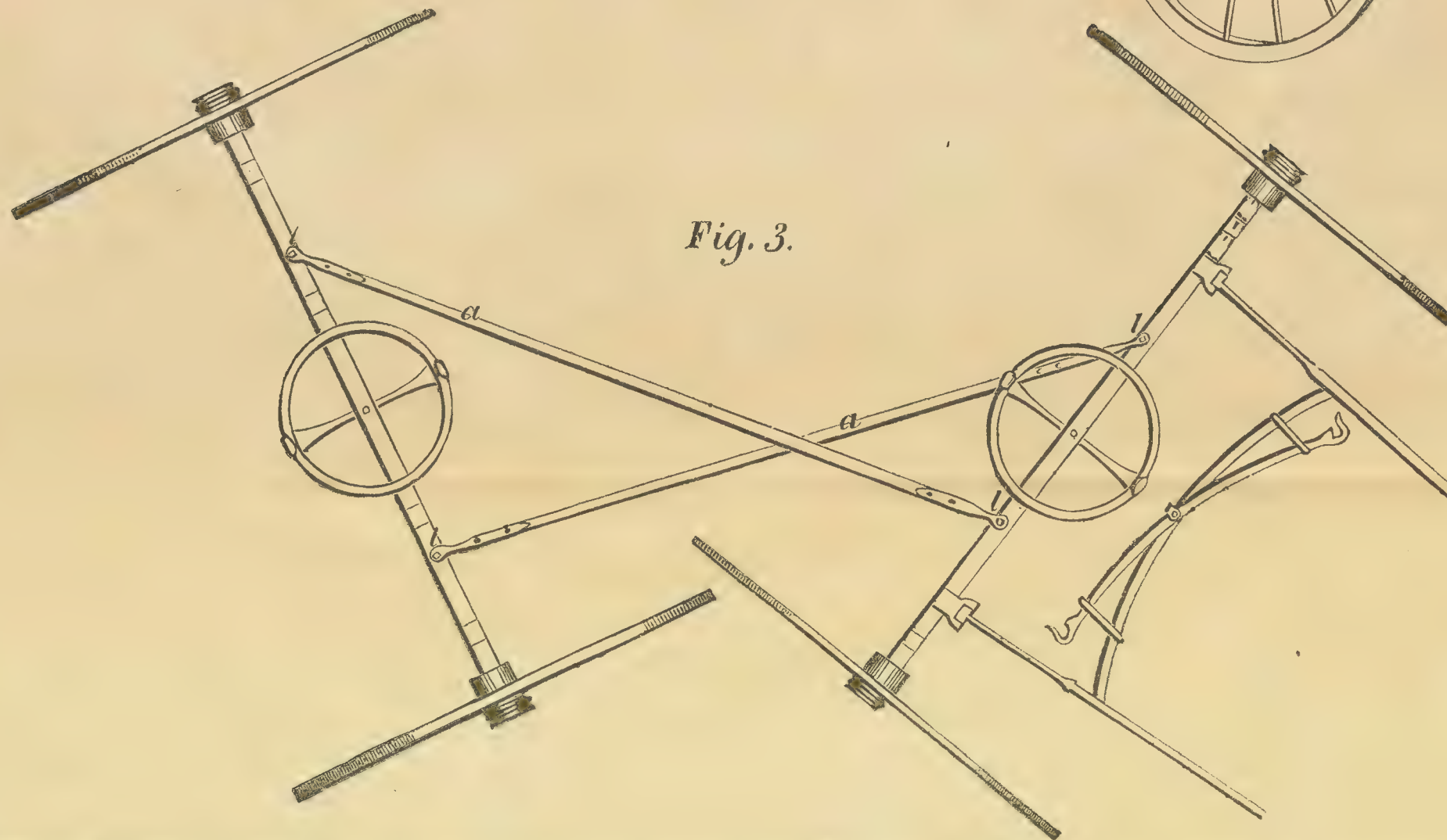


Fig. 3.





Volume 2.—Number 5.]

May, 1856.

[E. W. Saladee, Editor and Proprietor.

TERMS:

Single subscription one year	\$3 00
Clubs of three	8 00
“ “ six	15 00
“ “ ten	20 00

Payable invariable in advance.

All Clubs, however, must be sent to one address.

Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented stamped on the cover in gilt letters.

All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Persons visiting New York, who are not subscribers, can see the Magazine and subscribe by calling at the Office of the Coach-Makers' Magazine, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for New York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

Back Numbers, from January 1st, furnished to all new Subscribers.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

All advertisements for a shorter time than twelve months are charged 50 cts per line for each insertion: Payable in advance.

Fashions for May.

For Saladee's Magazine.

FIG. 29.—CRANE NECK BRETT.

MR. SALADEE:—As the season for half top carriages is approaching, I have concluded to send you a drawing which finished up very neatly indeed. The back (A) to the front seat is so attached to the body, that it raises up in its present position, and when passengers are not occupying the front seat, it is let down, and thus the whole of the trimming is covered up, and also gives the carriage the appearance of an open city calash, with but one seat in the body. The engraving will more fully explain its manner of construction.

J. I.

For the Coach-Makers' Magazine.

FIG. 30.—THE FRENCH CRANE-NECK COACH.

We have recently received from Europe this very fine draft of a

Crane-neck Coach, which we trust will please our friends as much as it has pleased ourself. We intimated in our Feb. No. of this Magazine, that the draft given of a coach there, possessed an aristocratic look; the present draft we may say—if you will allow the expression—presents a princely as well as “an aristocratic” appearance. It is what the Frenchman would call a *caisse dagagee de vent d' devriere*, &c.—a disengaged body in front and back, as it is hung upon two swan necked shaped irons, extending to, and connecting with the fifth wheel and spring; terminating in front with two serpent-headed scrolls. You will perceive that the sunken bottom of the body is artistically carved; the doors have both glass windows and blinds, and the supporting holders and foot board arrangements for servants are rich and complicated. The steps fold up inside of the body, thereby allowing the carved bottom to show to the best advantage. The body linings are silk Coteline, with rich silk curtains. The hammer cloth being composed of the richest materials, and falling over a finely painted and beautifully trimmed rumble, presents a happy contrast to that portion of the carriage. The manner in which this coach is hung up and the entire finish thereof constitutes it a beautiful, as well as an easy riding vehicle. As to the painting, the taste of this country is altogether in favor of black; but in Europe the body is generally painted with Brunswick green; the carriage part vermilion overlaid with carmine, the pump-handles, mouldings, &c. being painted black.

E. M. S.

FIG. 31.—CONNECTICUT BUGGY.

We here give the illustration of a drawing sent us by Mr. Terrill, and which was handed to him by Mr. S. C. Tooker, of Rahway, N. J., for the Magazine, some months ago. It was filed in our drawer, and by some means overlooked until a few days since, when we again caught sight of it; but the explanation of the same, by some means or other, seems to be entirely lost, or we never had it. We are at a loss to know which. However, it is a good design, and one which exhibits as much originality in the outlines of the body as that of any other we have seen for a long time, and therefore present it to our readers with the name of the worthy contributor. The body can be made skeleton or solid side. Figures represented as shown by mouldings. The back part of the body is closed with a pannel, and in every other respect as represented in the engraving.

(For Saladee's Magazine.)

FIG. 32.—SLIDING SEAT BAROUCHE, WITH BROWN'S IMPROVED SLIDE SEAT.

MR. SALADEE—*Dear Sir:*—I take pleasure in contributing to your Coach-makers' Magazine a style of sliding seat carriage entirely original with myself, and to which I have applied my improved arrangement for slide seats as illustrated in the October No. Magazine for 1855, and without which you will perceive the same design could not be so completely carried out without imparting to it a very heavy appearance.

In this design I have introduced, as you will readily perceive, a very new feature in this class of carriages. I refer to the door, which at once renders it a very desirable pattern for a two seat vehicle, and at the same time no objectionable feature can be discovered when in the position of a one seat carriage. Moreover, this drawing, (should it be inserted in your journal,) will at once answer the many inquiries I have received from your readers, as to whether my improved mode of attaching sliding seats was limited to one style of body, viz: box body, (as shown Oct. No. '55) or whether it was applicable to any design that will admit of sliding seats. This will show that it is not only applicable to every other design to which the ordinary manner of applying sliding seats is adapted, but to such convenient and desirable styles in which the old arrangement fails to answer. The form of construction is readily seen by consulting the drawing; therefore a minute description or explanation of the same is unnecessary.

R. H. BROWN.

Cleveland, April 1, 1856.

[Mr. Brown is now fixing himself in such a position, that he can furnish a variety of styles of his sliding seat bodies, which he proposes to furnish to the trade on the most reasonable terms, or sell the right to use his improvement.—ED.]

FIG. 33.—BROWN'S CONCORD WAGON.

The design represented by this figure is another contribution from Mr. Brown, of Cleveland. It is something very original, and withal a very appropriate design for this kind of wagon, being light and extremely fanciful in appearance. It is likewise a very becoming and appropriate style of body for *Sprout's* springs.

The exact style of wagon represented by this engraving, has perhaps the cheapest constructed carriage part that can be made. It consists of two axle beds, one long head-block or bolster, two straight perches lightly stayed with iron, and the two side springs with the jacks to support them at each extremity. This consideration, and that of its durability, should be sufficient inducement to the majority of proprietors, to build some of them, and introduce the same to their customers.

VERLEGER'S IMPROVED PATENT GEARING FOR CARRIAGES.—PATENTED FEB. 3, 1852.

The following is a full and complete description of this improvement by the inventor:

"The nature of my invention consists in an improved arrangement of the running gear of four-wheeled carriages, whereby I am enabled to produce a light and strong carriage, all four wheels being of equal size, if wanted, and which can be turned round with ease, and without danger of upsetting, in a space of about the diameter of one of the wheels.

The hind axle being connected with the fore axle by crosstrees, *a a*, the motion of the one is governed by the other, so that when the carriage is turning in the shortest possible space, or the axles at their greatest angle, as represented in the drawing, the inner wheels, *b b*, assume a position nearly at right angles to each other, consequently the fore part of the body of the carriage is thrown off the support of the fore axle.

In order to give the desired support to the fore part of the body when in the act of turning short, I arrange and adapt the running gear as follows: *c* is a large segment plate, which is firmly secured to the fore axle, *d*; *e*, a perch jointed to the fore axle by the perch-pin *g*, which pin passes through a slot instead of a round hole in the perch, for the purpose of giving a little longitudinal play, so as to

prevent any strain upon the rods *a a*, when the carriage is turning short; *h* is a segment plate secured to the end of the perch *e*, on the top of which slides a corresponding segment plate *i*, secured to the perch block. The segment plates *h* and *i* are of the same curve, corresponding with a curve drawn from the centre pin *j*, of the hind axle; and the segment plate *i*, is prevented from rising or getting out of place by the hooks or brackets *k, k, k*. The points on the axle *l, l, l, l*, for the connection of the rods *a, a*, with the axles, are ascertained by dividing the hind axle into four parts, and the fore axle into six parts; this gives the desired angle to the axles—that is to say, respectively to each other giving the greatest ease and regularity of motion to the respective parts when the carriage is turning round in a small space, and avoiding all danger of upsetting; *m, m*, are slopes at each end of the segment plate *c*, for the purpose of preventing the extent of the angles of the axles, and preventing the wheels *c, c*, from touching each other.

Having thus fully described my improved running gear for four-wheeled carriages, and the advantages attained by the same over all others, when the object is to turn in as small a space as possible without running the fore wheels under the body of the carriage. The construction of the segment plate *c*, and the perch *e* sliding thereon, and connecting with the axles as described, with the segment plate *h* forming a part of the perch *e*, and the plate *i*, all attached to *h*, the perch block of the body, and sliding on the plate *k*, in connection with the rods *a, a*, by which the other parts are regulated and governed in their action, constituting an arrangement of running gear.

Fig. 3 represents a running gear for all carriages, light or heavy. The work and expenses are much smaller, as with any other method, new or old. The carriage is also much easier for horse and driver, and turns without the least difficulty upon the space of one wheel."

Further information can be had by letter addressed to
DEIHM, HUFMAN & RIDGEWAY, Pottsville, Pa.,
Assignees for the States of Pennsylvania, New Jersey, Ohio and Indiana.

We have received several letters from carriage makers who are using this coupling, in which they have spoken of it in the most flattering terms. We have never yet seen a carriage with this improvement applied, and therefore cannot answer the inquiries of our friends in Pennsylvania and Indiana who have written us concerning it. Mr. Deihm, we understand, will visit the carriage-makers throughout Ohio and Indiana the present season, with one of these vehicles, when they can have the opportunity of seeing it in practical shape.

COMMUNICATIONS.

(For the Coach-Makers' Magazine.)

THE IDEAL, INCEPTIVE, AND PROGRESSIVE HISTORY OF COACH-MAKING.

PART SECOND.—SPECULATIVE.

Omnis cognito multis est obstructa difficultatibus.—CICERO'S Acad. Ques. 4. 2.

Although the employment of wheel carriages can be traced far back to a very early period of our world's history, yet, doubtless they were in common use long prior to any written account which has been handed down to us. Very soon after the fall of Adam, who

—"being manifold in sin deserved to fall."

and his consequent condemnation to just punishment because of his foolish transgression of the divine law;—in his endeavors to ameliorate his now wretched condition under the severe, but deserved sentence, wherein it was ordered by his greatly offended Creator,—that "in the sweat of thy face shalt thou eat bread"—our common progenitor, or some of his more immediate descendants, must have, doubtless, set themselves about studying out some plan whereby the rigors of that sentence might become softened, or in some degree, at least, counteracted, or made more endurable. When he contrasted his present miserable state with his former happy condition in Paradise, he must have felt miserable in the extreme, and this misery would evidently be well calculated to stir up within his mind, that spirit of invention implanted there by God himself; for man was originally created

"As capable of things divine, and fit
For arts: which sense we men from Heaven derive."

[TRANSLATION FROM JUVENAL.]

Probably almost, or quite, the first thing undertaken by man, was an attempt to bring under his subjection some portion of the animal creation which his Creator had already told him had been expressly made for his

special use. Perhaps the very first trial at carrying burthens convinced him that the horse's back was not sufficiently strong, and consequently unsuited for transporting such heavy loads from place to place as man's ambitious mind required, and his first effort at invention would necessarily be the production of something on the principle of the sled or sledge, which still exists in a multitude of shapes, among uncivilized nations at the present time. This "sledge," without question a rude and clumsy constructed affair,—on a comparatively arid soil, such as we suppose surrounded our early progenitors, would not glide along on the surface of the earth with sufficient ease to render this incipient invention effective.

Mankind being possessed of an intuitive mind merely,—and although unlike the lower order of animals with instinctive qualifications,—and having but a small portion of original genius allotted to the individual, he consequently approximates to perfection, in no particular branch of the mechanic arts, only just as an opportunity from learning from his fellow man is afforded him. It is fortunate for us who live in the present age of the world, that we have so many and manifest advantages over the generations who have preceded us in life—advantages derived from the accumulated knowledge, and practical experience bequeathed to us by our industrious predecessors—and that we have necessary convenience contrived and provided for us, for rendering life comparatively comfortable, and pleasant; and such is decidedly the triumphs of art, that we venture but little in affirming that

"The curse a blessing" has been "found."

But to return to our speculations.—Now we do not suppose that art had made any considerable advancement previous to the days of Tubal-cain, [A. M. 129] who is supposed to have had the perfection of the arts in his day, concentrated in himself; for we are told in the 4th chapter of Genesis, at the 22d verse, that he was the "instructor of every artificer in brass and iron." Perhaps that in connection with our reference to Tubal-cain of the sacred page, we shall not have a more suitable opportunity for acquainting the gentle reader, that M. DeLavaur has labored industriously in order to convince the world in his work entitled "Conference de la Fable avec l'Histoire Sainte," that the Greeks and Romans took the idea of their smith-god Vulcan from this son of Lamech; Tubal-cain. The probability of this will appear, he says—1st; from the name, which by the omission of the *Tu* and turning the *b* into *v*, a change frequently made among the Hebrews, Greeks and Romans, makes Vulcain or Vulcan. 2d; from his occupation, he was an artificer; a master smith in brass or iron. 3d; he thinks this farther probable from the names and sounds in the paassage under consideration. The melting metals in the fire, and hammering them bears a near resemblance to the hissing sound of "tsillah," the mother of Tubal-cain. 4th; Vulcan is said to have been lame; our author supposes that this notion was taken from the noun, "tselah," which signifies a halting or lameness; although every man of classical intelligence knows that the poets of antiquity tell us, that having incurred the wrath of his father Jupiter, and having been kicked out of heaven, he received his injuries in consequence of having fallen upon the rocks which crowned the heights of mount *Ætna*; which rough usage he appears soon to have forgotten, or else forgiven, for we find him shortly afterwards employed in forging thunder bolts for his tormentor—father. 5th; Vulcan had for his wife Venus, the goddess of beauty; Naamah, the sister of Tubal-cain it is supposed, may have given rise to this part of the fable, as her name in Hebrew signifies beautiful. There are many other observations which leads to the conviction of the identity in origin of Tubal-cain and Vulcan, all of which the curious reader will examine for himself in the above mentioned singular work, our space not permitting a more extended digression.

Now, as before stated—this clumsily constructed affair—this antedeluvian sled, having been drawn along on the earth's surface, with its superincumbent weight and some rising genius somewhat in advance of his contemporaries having intently marked its forward movements, when in use,—who doubtless as he saw it, mount the spheriodical stony obstructions, or fallen limb of a tree, lying in its pathway—had seen that thereby its motion was greatly facilitated; thus suggesting to his thought-stricken brain the first practical idea of a carriage wheel* Oh! how that heart must have jubilated as he foresaw with prophetic vision the lasting benefit of his new discovery would confer on the future prosperity of mankind; or descended upon the long catalogue of labor, or pain removed out of his way forever, by an application of his new born idea to improvement in the locomotion of his primitive sledge. The next movement then, would naturally be, for the early inventor to place his sled bodied contrivance on two wheels—for at least this number would be required in order to preserve a proper equilibrium—and we shall find as we proceed along down the pages of past history, that everything moving upon wheels was restricted to the above number only, down to a very late date in our world's records. Probably, the first wheels in practical use were such as might be formed by cutting or sawing off—supposing the proper tools were yet invented—cylindrical blocks from the body of a large tree, and putting holes through their centres—(this we conceive to be more probable than the theory advanced by some speculative writers; which is, that both axle and wheels were worked off solid, by cutting away the superfluous wood, and thereby causing the intermediate cross-beam to assume the shape which we denominate an axletree; something similar to such arrangement as may now be seen under railroad cars, &c.—to be fixed on wooden cross-pieces, which would very well answer all the purposes required in an axletree in those primitive times.

As he had now put his new invention to practical use, he would soon find it absolutely necessary to have some unyielding contrivance to take the place of his former flexible draught chain; in order to secure his sledge-wagon in a proper position, while being loaded, or drawn forward. This he could readily

*We are aware that some theorists have advanced the idea that vehicular motion was first conceived from observing—by persons inhabiting the banks of rivers—that trunks of trees and other vegetable substances floating upon the surface were carried down with the current. If the subject under consideration was naval architecture this theory could appropriately be tolerated, but—with all proper deference—since our subject is carriage-making, we shall claim for our theory, at least, a little more probability, especially in the absence of any positive evidence to the contrary.

find near at hand, by felling a small tree, and depriving it of its useless branches, and firmly securing it to his sledge-wagon body; thus supplying what we moderns designate a tongue, as seen in our carts at the present day.

Thus a man's necessities required, and his mind became thoroughly and industriously applied to the subject, he by successive experiments, and successful improvements, brought his sled bodied vehicle along down successive ages, until we find it to have assumed, among its other modifications, the form of the stately chariot mentioned in the book of Genesis. We remark *en passant* that the appellation of sledge is still given to a low description of vehicle, or cart moving upon wheels—in England for instance—at the present day, although sled or sleigh is peculiar to America; and nothing with wheels ever receives the name here. In our next article we shall have occasion to treat of the chariot of scripture, and the classical authors.

E. M. S.

For Saladee's Magazine.

RAMBLINGS—NO. 8.

Dear Sir:—The place of writing this letter finds me among smiling faces and old acquaintances. It is really a pleasure for me a second time to call on the carriage makers in this section of country. In my ramblings last summer, when I would call at a carriage factory, I often at first met with *kind of a don't care to see what you have for sale*, but in this my second visit, find my presence as welcome as was the Magazine of last year. Were I to give you a full account of my doings and sayings, or even undertake to give a notice of all the manufactories I leave the Magazine at, you would have to double the size of your monthly.

While it is fresh on my memory I must give you a sketch of a little incident that occurred down here among the Yankees. While passing through the factory of one of our good friends and patrons, Mr. _____ in the old Commonwealth, I noticed a gruff, crabbed looking customer eyeing me somewhat suspiciously. I thought I would try him on just to see what kind of an animal he might be. I approached him very cautiously but as courteous as I knew how, with a "Do you wish to see our very interesting and popular Mag?" "No." "But, sir, perhaps you might think different, should you see the contents." "I tell you no." Then I began to grow eloquent after my fashion. "But, sir, there are many things in this work, no doubt, that would prove beneficial to you," at the same time showing him the pictures. I now discovered he began to mellow down, and I showed him that rather fine looking Rockaway in Feb. No. drawn by your Gen Agent.

"O, ho! that's nice," and after a general pursual and answering something like a thousand questions about the origin, present and future prospects of Mag., I thought the only way for him to know positively, would be to take the work from its commencement and continue so to do, and then he would know it all. As the result of our interview you will receive a most beautiful drawing and a sub., and I rather think as he has got such a foot held now, you can set him down as one heartily enlisted in the cause.

In my last letter to you I promised you more about Philadelphia, but just set down the city of Brotherly Love all on our side. But I can't pass it by without saying something about our new made friends, Lane & Co., who are real clever coach-makers and who have just invented an axle upon an entirely new principle which has several advantages. Instead of having box in the hub, the end of the stock is made hollow and the arm revolves in it, requiring but a very small stock made square to pass through the hub. The wheel is fastened on in precisely the same manner as the bolt pat. axle.

Leaving Philadelphia, I took a trip out through central Pa as far as Hughsville, where I had the real pleasure of making the acquaintance of Messrs. Sprout, Burrows & Co and also of visiting the different departments of their Spring Manufactory, and also of seeing just how the thing was done, which visit proved highly satisfactory to me. I find them all working men; overseeing and performing themselves the most particular parts in making their springs. From the amount of steel on hand and men employed, I should judge they had a good share of the trade, and from my own personal knowledge of the merits of their springs, they are justly entitled to the patronage they now have. At Milton, Pa., I found a carriage maker that had used sixty-one sets of their springs, and has not had the first one yet to come back for repairs. I also had the pleasure of seeing the first buggy that was made in 1850 with that spring, by Mr. Beardsley, of New York city. It still survives, with its third set of wheels, and the original spring, without ever having one cent of repairs upon it. Also a truck which had been in use for some years, with these springs under it, having often car-

ried thirty hundred lbs on it over a very poor road, without the least injury to the springs whatever. I have no doubt that when the real value of these springs are known, they will be applied not only to pleasure carriages, but also to various kinds such as express and truck wagons.

Throughout this State I visited many places, and obtained many sub. to Mag. I was particularly pleased with Mr. Hood's smith-shop at Mt. Ewensville. It was once quite a prevalent idea that any kind of a place or shed was good enough for a smith shop, (to which I never could become reconciled), that men working at that business in cold weather, handling cold iron, did not require as warm and comfortable shops as any branch of our business. Mr. Hood's shop is indeed a model one, built with a high arch ceiling, well ventilated, kept very neat and clean, and looked in every way not only comfortable, but rather inviting, and were I of that branch of our trade, would rather work for less wages in such a shop, than in many of the things called smith shops. I have not the least doubt but that the extra amount expended in fitting up the above room, more than remunerates its proprietor in the amount of work done.

From here I wended my way along through New Jersey, to the place where I was initiated into the arts and sciences of coach-making—Rahway, home of my boyhood, and for seven years since I graduated. From the many smiling faces I met I rather think they were glad to see me again; however I will leave that to you, for I obtained sixty-two sub. to the Mag., notwithstanding I was not allowed to call on the men in one of the establishments. Well, that is the way the world wags; some of us are apt to get a little kinky, but it is all in a life time, that's all. Next to Newark, where, if I should judge from what I saw, the stakes have been pulled up and Mason's and Dixon's line either lost, destroyed, or moved. I had the pleasure of attending the dedication of a new church in that city, and hearing from three bishops: one from the church South and two from North. I rather think the southern trade will be better the coming season.

Thence to New England; first Bridgeport. I am not going to undertake to tell you who are our friends there, but just make a wholesale business of it and venture to assert they are all with us; for a proof I thought I done well last year, but this year have doubled the number. I only wish that some of our coach makers when they tell me that our book will do for country shops could see our list of sub. from this city, noted as it is for its superiority in coach work.

Next to New Haven; how unlike the Elm city of last summer, with its beautiful foliage and grassy parks, and its merry pedestrians, but after the manner of carriage making is the same as then; they are with us and our Mag. are with them, or at least the three first No.'s of the year 1856 are there, and not a few of them either.

The next place I halted at was the good city of Boston; the place from where I now write. I always feel very patriotic when in this city; if I look towards Charlestown the monument on Bunker Hill towers towards the skies; to look in the opposite direction, and Dorchester heights roll up before me, reminding me of the scenes that once were witnessed at these places; much has been said in honor of these memorable places, but as the humble agent of a scientific journal, I have only a few remarks to make. I visited Dorchester heights, and what do you think; why I found a carriage maker, Mr. B. F. Brown, whose patent springs you applied to the three first drawings of March No. I had the pleasure of testing its good qualities by riding in and must acknowledge that I found it to be all Mr. Brown claims for its superiority over the ordinary mode of applying the spring to wagons. I found the above to be doing a very clever business in the way of building carriages, and the greater portion of them finished with his patent spring. Of course our Mag. was just the thing, and to cut the story short, thirteen Mag. now cheers the hearts of a faithful, generous, and clever set of fellows, as did once the stars and stripes lead on a spirited and noble band to victory, via Dorchester Heights.

In your cuts representing Mr. Brown's springs, I see it is represented as having the perches ironed, showing bolt heads. This is not as the original. By plating it with iron you destroy in a measure the pleasant motion produced by the action of the springs on the perch.

But to Boston and Roxbury, and the many places that surround it, for the past two weeks my face has been quite familiar. My old friends seemed glad to see me, and many new ones I trust were

made, to be renewed and extended another year, should a kind Providence continue to smile on us in the future as in the past.

Yours,

ABR'M TERRILL.

Quincy House, Boston, March, 1856.

For Saladee's Magazine.

THE OMNIBUS REVOLUTION IN LONDON.

In the No. of this Mag. for Jan., (p. 8) we noticed the contemplated formation of a company for perfecting a new system of travel by omnibus in the streets of the British metropolis. The new company appear to have met with a sturdy opposition from the regular "Bus-men" and placards of an exciting nature were posted on the walls throughout the city in condemnation of what was styled a foreign innovation. As every available point was posted with these bills, the congregation of idlers and the jeering of the "Bus-men" created a perfect nuisance, so much so that the police were ordered to prevent any more being put up, and set to work pulling down and defacing those already up. Still, notwithstanding the great excitement and strong opposition, the company commenced its operations on the 7th of Jan., with 50 omnibusses and 500 horses, and employing 180 men. This first instalment was from the Holloway line belonging to Mr. Wilson, and was duly worked by the new proprietors throughout the day. The "times," or good will, considered equally as valuable as the vehicles, &c., were also made over as a part of the bargain. A similar transfer was made on the same day by Mr. Leonard Willing, the oldest omnibus proprietor in London, who, with others, conveyed to the new company the Stoke Newington, Kingston and Dalton Lines, *intoto*; comprising 22 omnibusses, 200 horses and 70 men. The French system of "correspondence" does not come into action until the new omnibusses are built, and the purchase of the other London lines are completed. A bargain has already been struck for the consolidation into the new, of the following old lines, viz: the Newington and Hackney, with 20 omnibusses, 150 horses and 55 men; Brompton and Fulham, 40 omnibusses, 400 horses, 140 men; Chelsea and Hoxton &c.—Chelsea and Bethnal green, 37 omnibusses, 370 horses and 120 men; Kent-road and Hoxton, 12 omnibusses, 120 horses and 40 men; Hackney and Clapton, 10 omnibusses, 100 horses, and 35 men; Woodford, 5 four horse mails; Barnet 2 four horse mails with 100 horses and 30 men. The above comprised the larger proprietors of omnibusses in London. Since these purchases, the smaller lines have been purchased by the French company, viz: from Camberwell-gate to St. John's Wood; from the Swiss Cottage to London Bridge; from the Angel, Islington, to Sloane-square, Chelsea; and from Padding to the Bank; by the New Road; from Kensall-green Cemetery to London Bridge station. Those of Mr. Stanbrooke from Kilburn-gate to White-chapel; the Royal blues of Messrs. Clarke and Ingram (17 in no.) from Pimlico to the Blackwall railway; those of Mr. Siborne from Kilburn-gate and the Royal Oak by Paddington to the Bank; with Mr. Nett's, which run over the same district; Mr. French's from lower Edmonton and Tottenham to Oxford street; and Mr. Rickard's Atlas, New Road, and Royal Oak omnibusses. Messrs Cotton & Siborne's short mile omnibusses from the Marble Arch to Farringdon St., have also been sold to this new company, amounting in vehicles altogether about 325, with about 2500 horses and 1000 employees, being about seven-eighths of all the omnibusses in London.

The following noted proprietors have retired in addition to those already named, viz: Messrs. Chancellor, Breach, Kenison, Hartley, Willing, Willson, Woodford, Webb, Westropp, Williams, Hunt, Horne, Fox, Seale, Rhodes, Hawtrey, Hinckley, Smith, Johnson, Bennet, Forge, Broome, Martin, Macnamara, Andrews and Mrs. Edmonds; all in favor of this new anglo-French company. The labor of consolidating these different lines was very great, but the favor with which the new line is received by the public, is ample proof that it will make the undertaking successful to all concerned. In three weeks the price of oats fell from 32s. a quarter, to 23s., which, as the weekly consumption amounted to 1500 sacks, gave an unexpected benefit to the new shareholders of £357 weekly.

The omnibus under the old system, was reputed to be with a few exceptions, a wretched, dirty, rickety box, very uncomfortable, with rattling windows which let in the cold and rain, moving either too slow or too fast, the fares raised at the whim of the different owners, the drivers rough, insolent fellows, managed with the single thought of crowding the vehicle so as to fill their own pockets,

without regard to the wants of the public. The consequence of these changes is; that the London public expect a reform from the new company, which will prove very beneficial to all who travel in the omnibus, either for business or pleasure. E. M. S.

AXLETREES.

For Saladee's Magazine.

BRIDGEPORT, March 4th, 1856.

MR. C. W. SALADEE—Dear Sir:—To test "S. E. T.'s" theory on setting axletrees—that is, gathering forward—take any carriage you please, raise one of the wheels a little from the ground, and let it down carefully, so that it will stand without straining; then run the carriage forward six or eight feet; now, if by lifting the same part by taking hold of the axletree near the shoulder, it does not spring out nor in at the bottom, the gather is correct. You will find that the carriage which runs perfectly straight forward, and the wheels are not inclined to run together, will run easy. You will also find that the axletrees do not gather. Please try it yourself and let us know the result.

Yours, truly,

G. R. G.

For Saladee's Magazine.

A RESPONSE.

MR. EDITOR:—In looking over the pages of our Magazine, I observed a notice of inquiry, respecting the best, or the proper time in the year to cut carriage and wagon timber. Having been a close observer of these things, and having had ten years' experience therein, I have concluded to contribute my little mite for the benefit of those of your readers who are wholly ignorant upon this subject. I have found that hard wood timber, such as Oak, Hickory, and Ash, cut in the months of August and September, is much the best, both as regards toughness and firmness, and is likewise preferable for bending purposes. For, at this season of the year, the growths of the trees are at their maturity, and all the sap is retained in the timber, which while seasoning imparts strength, causes the pores to become more close, and the life of the timber is thereby preserved; whereas, if it had been cut in January or February, when the sap is in the ground, the result is exactly vice versa.

Yours, in the craft,

J. W. B.

Painting Department.

For Saladee's Magazine.

LEXINGTON, April 7th, 1856.

MR. SALADEE—Dear Sir:—Owing to a press of other business, it will be impossible to forward article No. 5 in time for insertion in the May No. I have partly finished it, but as it is on an important subject, I must give it proper attention. Hoping to be excused, I remain

Yours truly,

B. McCracken.

TWO HATS FOR ONE HEAD.—Portraits, in the time of Hudson, the master of Sir Joshua Reynolds, were almost always painted in one attitude—one hand in the waistcoat and the hat under the arm. A gentleman, whose portrait young Reynolds painted, desired to have his hat on his head in the picture, which was quickly finished in a commonplace attitude, done without much study and sent home. On inspection, it was soon discovered, that although the gentleman, in his portrait, had one hat upon his head, yet there was another under his arm!

A COLLECTION OF ABSURDITIES.—An altar piece in a church at Capua, painted by Chella Delle Puera, representing the Annunciation, is a curious collection of absurdities. The Virgin is seated in a rich arm-chair of crimson velvet, with gold flowers; a cat and parrot placed near her seem extremely attentive to the whole scene; and on a table are a silver coffee-pot and cup. A modern Italian has painted the same subject in a way equally absurd. The Virgin is on her knees near the toilet; on a chair are thrown a variety of fashionable dresses, which show, that in the painter's opinion at least, she must have been a practised coquette; and at a little distance appears a cat with its head lifted up towards the angel, and its ears on end to catch what he has to say.

TRIMMING DEPARTMENT.

BY G. D. M'LANE, NEW YORK.

In accordance with a promise published by my request in the last No. of the Magazine, I now lay before the readers of this No. various designs for trimming, such as dash, aprons, boots, and fronts to cushions.

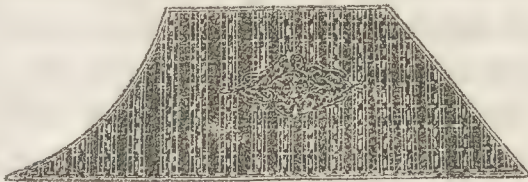


Fig. 10.



Fig. 11.

stitched upon it as shown in the engraving.

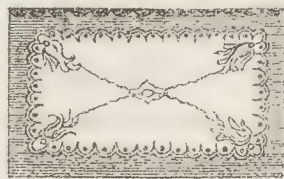


Fig. 12.

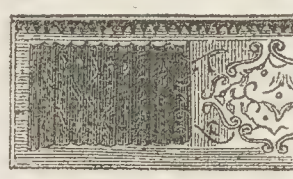


Fig. 13.

ornamental figure is cut through, and in which is placed a different color of leather, stitched off as shown.

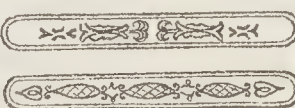


Fig. 14 & 15.

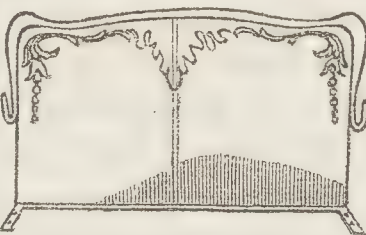


Fig. 16.

This represents a very ornamental style of stamping boots to light trotting buggies.

Fig. 11 is the same with a plainer finish.

Fig. 12 represents a very fine style of apron (half new.) The ground work is of the same material of which the carriage is trimmed, and finished with black leather

Fig. 13 is another very rich design for aprons to fine work. It is composed of leather, plated as represented, and in centre an

Fig. 14 and 15 are designs for leather fronts to cushions. Fig. 14 is plain leather and figures stitched, but Fig. 15 is made with two pieces of leather. The outside piece black, and figures cut through it as represented, and to the back of which is neatly stitched a strip of leather of a different color.

Fig. 16 is an illustration of an original design for ornamental stitching on dashes.

EDITOR'S TABLE.

MAY,

1856.

AMERICAN AND ENGLISH CARRIAGE BUILDERS.

"Why boast of thy knowledge?"—SHAKESPEARE.

In a late No. of a mechanics' journal, published in London, we find an article headed as above. The author of which is evidently an English brother craftsman. The writer of this epistle labors with great earnestness to make it appear that the most scientific coach-makers in the world, are those of Germany, France and England, but the masters in the carriage kingdom are to be found in the latter country. He attempts to substantiate this assertion by referring to an unknown perfection the English builders have attained in the construction of their vehicles, the finish of the same, &c., giving them, (with but few exceptions,) credit of all the important improvements ever made in our branch of the arts. And in speaking of American carriages, we are gravely informed that imperfections of great magnitude are manifested both in design and execution of work, which he politely concludes, is the natural result of all unskilful and inexperienced mechanics; thus intimating that American coach-makers have much to learn before they can claim perfection; or attain the same eminence that has been reached by our English brethren.

We should hardly have condescended to notice the ridiculous nonsense of this scribler, were it not for the fact that many of his

brethren before him have written of us in the same contemptible style, and indeed, so far as we have yet seen, (with but one exception,) when they have attempted to write of us at all, they have almost invariably run into the same mistaken channel of this unfortunate quill driver, representing us as being any thing but master workmen, and with all the PARENTAL dignity and good feeling imaginable, for the rapid growth and progress of their *imaginary* offspring in young America, give us to understand that Germany, France and England are the only land marks on the inhabitable globe that are blessed with the birth of intelligent mechanics, and in a tone of great superiority bid us look up to the fountain head of mechanical knowledge, and receive *that* instruction which tends to *greatness* in the manufacture of *coaches*.

When we are brought to witness such a rare exhibition of ignorance and *selfishness*, we cannot refrain from addressing the principle *comedian* in the *laughable* farce with the words of the dramatist, (scribe,)—"O ye gods of wisdom, know ye not that self-esteem hath made thee blind?" Surely this writer could not have been prompted to speak of his American brethren in this manner from motives of justice, nor yet by that golden rule which demands of every well disposed individual to speak of a man, a class, or of a nation as he finds them. And here the question very naturally arises, and demands—did he seek to acquaint himself with *our* mechanics before he ventured to write concerning them, as every honorable writer should do? If so, did he speak of us as he *found* us? We answer NO; far from it. Then does it not necessarily follow that he was guided in his respectable task by ignorance; or what is worse, the narrow feelings of *self-conceit* thickly sprinkled with national prejudice? And which, need we add, should be far beneath the principles of MEN, say nothing of those *pure* characters, who, like our author, profess to have a superior knowledge of human nature and the world at large.

But, notwithstanding we have been repeatedly thus misrepresented, we shall, nevertheless, think more of our honor, self-respect, and the duty we owe to our fellow men, and especially our European brother craftsmen, than to stoop to so low a depth of meanness as to repay them in their own coin. No; we repeat, we have more respect for them than to drop even a word that would in any way wrong or misrepresent them. And while we most freely admit that Germany, France, and England abound with mechanics of the highest order, we would with equal frankness deny that America is destitute of such nobility, and of this fact our English brethren ought to have been convinced from the exhibition of American carriages at the World's Fair in London, in 1851, and how any Englishman, after seeing their productions there, side by side with their own, should in five years after, talk of clumsy American carriages, ill proportion, bad exhibition of taste, &c., requires a mind far more expansive than we possess, to comprehend; when the fact is, that for lightness, variety of style, and beauty of form, the American carriage builder stands *unequalled* by that of any other nation in the world. That we may not be thought as exaggerating in this latter expression, we will quote the admission of *one* English writer who had the goodness of heart to do us justice in the *Eningburg Encyclopedia*, supposed to be Scott Russell, who says, that all the carriages made in England were enormously heavy, compared with what they *should* be; they were like the lumbering coaches of Queen Elizabeth's time, compared with the light and elegant vehicles of the present day in England, and *which* lightness, (now mark you) is about *double* the weight of light American carriages. The surprise recently excited in the World's

Fair, by light vehicles from the United States, showed that the minimum of weight has not *yet* been attained in England. Now, what becomes of all this talk in behalf of English carriages, and the ill begotten ones of America. In the face of such an admission, and coming too from the source it does? Does it not prove that they lack at least one feature, which is paramount (or should be) to every other consideration in the building of carriages, that American manufacturers have attained in advance of them?—we mean the *lightness* of the vehicle. Yet it is *true* that the *English* coach-makers, and indeed those of France and Germany, are in possession of many ideas, which if applied to American carriages, would materially improve them, and so on the other hand, the American idea, if applied to the English carriages, would save about half the material now used; render them equally durable, more elegant in their appearance, and certainly *less* burthensome to the horse. Therefore let no nation of mechanics exalt themselves by crying out to their neighbors, "we are wiser than thou;" but rather be guided by a sense of justice; laying aside all national prejudice as unworthy the attention of high and noble minded men; endeavoring to realize the great truth, that in art or science there is but one nation, and that each *practical* member thereof is equally entitled to the respect and consideration of the rest, whether he be a native of *this* or *that* country.

A LETTER FROM MR. EDWARD EVERETT, OF QUINCY, ILLINOIS.

We have just received a letter from our friend Mr. Everett, respecting the notice we made of his letter in the March No. of the Magazine. He states that we misconstrued the meaning of his communication—that it was written in good feeling—not applied to our fears nor *an action at law*, neither that *other mode* of obtaining redress, more frequently resorted to with *Editors*, &c., &c. Possibly we may have misconstrued his *meaning*, but we think not his *words*, for surely they had the tone of something a little more *refined* than *good feeling*, and *one* that might not work well under *all* circumstances if verbally applied.

He also sends a certificate which we give below:

QUINCY, Ill., March 18, 1856.

This is to certify that we have ascertained by inquiry of those concerned in the construction; from inspection of bills, drawings, and other papers; and partly from our personal knowledge, that a carriage with the coupling afterwards patented by Edward and Charles Everett was made under their direction in 1843; that the same vehicle is now in possession of Edward Everett, with the coupling as originally applied, which is substantially the same both in principle and construction as the same are now made, and according to the claim of their patent of Dec. 17, 1850. The ball and socket joint, and the position of the stop in the rear of the segment instead of the point, being the only points of difference.

HAYES, WOODRUFF & CO.

Now, how is this? Why it proves priority of invention most certainly, but then here is another question which presents itself, viz: how *long* a time is a man permitted to make public use of any improvement, before making application for a patent?

In "Knight's Manual" for inventors, we find the following:—

"Application for letters patent should be made within *two years* after the first sale or public use of the invention."—Act. 1836, Sec. 6.

Again:—

"No patent is held to be invalid by reason of the purchase, sale, or use prior to the application for a patent, except on proof of abandonment of the invention to the public; or that such purchase, sale or prior use, has been for *more than two years* prior to such application for a patent."—Act 1839, Sec. 7.

Now, if the foregoing quotations mean anything, our friend has

not helped his case *much* by sending the above certificate to prove that his invention was used *seven* years prior to his application for a patent. We should be pleased to publish Mr. Everett's views upon this subject.

THE CLINTON CARRIAGE.

We are informed that Mr. A. J. Gibson, of Clinton, Mass., has now the sole management of the sale and manufacture of the various improvements embraced in the Clinton carriage, at the above place, and where he offers to furnish the trade on the most reasonable terms.

These couplings and shaft connections to the said carriage, as manufactured by Mr. G. are certainly worthy the attention of the craft, and as it costs but little to give them a trial, we think it is the duty of every proprietor, who is anxious to keep pace with the times, to do so. The coupling is so constructed as to do away entirely with the ordinary fifth wheels and king bolt, and at the same time making the connection much stronger, safer, and destitute of all manner of rattling.

The prices for these couplings range from \$3.75 to \$5.25. We think that the amount of work the application of this coupling will save in the construction of a carriage part is equivalent to first cost of the same. Shaft irons per sett, \$1.87. *Cheap enough* in all conscience.

BODLEY & LANE'S HUB BORING AND MORTISING MACHINE.

—Some days ago, while in the Queen City, we visited our old friends Messrs. Royer, Simonton & Co., and through the politeness of Mr. R. we were taken into their extensive Wheel Shop, and there shown one of the above named Hub Boring and Mortising machines in practical operation, and from a close inspection of the same, we must say, it is *without doubt* the most complete implement for that important work now in existence, and we feel it our duty to recommend it to every individual who is in want of such a machine, in the strongest terms possible.

Every Trimming Shop should have one—we mean one of those improved Sewing Machines, of Nichols, Leavitt & Co., 411 Broadway, New York. See advertisement in this No.

HARNESS.—D. S. Carrick, Cincinnati, Ohio, is very extensively engaged in the manufacture of Carriage Harness of every description, where the trade can be supplied on the most reasonable terms. See his card in this No.

Mr. Pryor, of Pittsburgh, has removed to St. Louis, Mo., where he proposes to continue business as he did in the former city. Notice his advertisement as it appears in this No.

OUR THREE WHEELED PHÆTON.—Messrs. Booth & Bro., of Columbus, Ohio, are now building a vehicle to our order on the plan of the "Three-wheeled Equirota Phæton," illustrated in the Feb. No. of the Magazine, and which will be completed in a few days, when we shall have the opportunity of giving it a *practical* investigation; the result of which will be fully reported in our next.

Mr. Geo. H. Knight, of Cincinnati, Ohio, has been, for some time past, engaged as a Patent Attorney, and in which business he has proved more successful than any other man who has ever attempted it in the West. His perfect knowledge of the Patent Office Laws and requirements, also of mechanism in general, fully

qualifies him for that responsible office. Those of our friends who are about to apply for letters patent on *any* improvement they may have made, will find in Mr. Knight a gentlemen worthy of their confidence and patronage. By sending to his address, Cincinnati, Ohio, one three-cent postage stamp, he will send you a pocket manual for inventors, and which contains much valuable information in a limited space.

The craft will find it materially to their advantage to purchase their Sand Paper, Glue and Curled Hair, from Baeder, Dolaney & Adamson, Philadelphia, Pa. See their advertisement in this No.

WANTED IMMEDIATELY.—One good Carriage Ironer and one Trimmer. Address HENRY BOND, Chippewa, Canada West.

P. S.—My place is 20 miles from Buffalo, New York; 5 miles from Suspension Bridge, and 2 miles from Niagara Falls. H. B.

WANTED IMMEDIATELY.—A first-rate Carriage Painter, to whom a liberal salary and steady employment will be given. Apply to WM. HUNT, Annapolis, Park Co., Ia.

Editorial Chip Basket.

BY E. M. S.

This fellow picks up chips, as pigeons peas.—SHAKESPEARE IMPROVED.

BITS FOR BORING FELLIES AND TURNING SPOKES.—Mr. Horatio McGrath, of Meig's Creek, O., has invented a single twist auger, with a tapering shell pod, for boring and tapering a mortise at one operation. The same gentleman has invented a tenor auger with an adjustable cutter to reduce the superfluous timber, and with its finishing bits arranged to cut a tapering tenon, with a shoulder at right angles to its axis.

Cha's Schmidt, of Union, Mo., has also invented a machine for boring carriage wheels, which we hope to be able to describe more minutely in a future "basket."

THE LAWS OF THE ROAD.—Some poetical punster in England, where it appears the custom as regards the turning out for a carriage to pass when driven in an opposite direction, is the reverse of our own, propagates the following:

"The laws of the road are a paradox quite,
For when you are traveling along,
If you keep to the left you're sure to be right;
If you keep to the right you'll be wrong."

ANOTHER SHAFT COUPLING.—Mr. Allen Greene, of Providence, R. I., has sent a model of his recently patented Shaft Coupling to the New York Office of this Magazine, where those interested are invited to call and examine it. We hope to be able to illustrate it soon.

THE FIRST DAY COACH FROM OXFORD TO LONDON, AND SOME WHO RODE IN IT.—The *Illustrated London News* in a late No., gives us the following extract from the Life of Anthony á Wood, written by Thos' Hearne, and others, and published at Oxford in 1772. "An. Dom. 1669, April 26th, (20 Carolus II.) Monday was the first day that the Flying-Coach went from Oxford to London in one day. Anthony á Wood went in the same Coach, having then a Boot on each side. Among the six men that went, Mr. Rich. Holloway a counsellor of Oxon, (afterwards a Judge) was one. They then, (according to the Vice-Chancellor's orders, stuck up in all public places,) entered into the Coach at the Tavern Dore of All Souls' College, precisely at six of the clock in the morning, and at seven at night they were all set down in their Inn at London."

LA DIOROPHE.—Messrs. Root & Bro., of Hastings, Eng., in the late Paris Exhibiton, exhibited a very ingeniously constructed

carriage, combining the advantages of three distinct vehicles, viz: a close carriage, a barouche, and an open carriage, thereby adapting it to all kinds of weather. It is very simple in its construction, yet strongly made, and easily changed from one form to another, which operation is performed in a very few minutes. "An eye or ring is fixed in the roof of the close carriage, and made to drop into a recess out of sight, when not wanted. When the change is to be made, a hook attached to a cord passing over pulleys fixed to the ceiling of the coach-house is passed into the ring, and the head being balanced by a counterpoise at the opposite end of the cord, is raised with the utmost ease, and remains suspended until wanted again. A similar arrangement is made for the barouche head, and thus one person may effect all the changes, however large the carriage may be. Its economy is evident, from the fact that it costs but little more than an ordinary carriage, although it possesses so many additional advantages."

CARRIAGE SPRINGS.—Mr. Richard Montgomery, of this city, (New York,) has patented a new description of spring for carriages, which we hope to illustrate in our columns hereafter. He says: "I claim the corrugated spring, D, when used in connection with the spring A, substantially as described." Will Mr. M. have the kindness to call at 106 Elizabeth St., New York, and leave his address?

AMERICAN GENIUS AT WORK.—Just let the public know that an improvement is needed in some part of a carriage and like the fires of Vulcan's forges, from the blast of a single bellows, as described in Virgil's Eneid, they start up in every direction. We have an example of this on reading over from week to week the lists of patent claims for shaft shackles, axle boxes, &c. What American does not feel proud of his country?

THE WAY THEY TREAT THE CRAFT IN VIENNA.—Carriage-making under the government of despots must evidently be rather ticklish business, for a late letter from Austria says, that our young Empress yesterday met with an accident, but fortunately—we think for the coach-maker's head—it was not attended with any serious consequences. The spring of her Majesty's carriage broke while she was taking an airing, and she was compelled to alight and return to the palace in a private carriage which happened to pass at the moment. This is the second accident (is it not ominous of the downfall of despotism?) of the kind to the Empress, and the Emperor (!) has ordered the person to whose negligence it is attributed, to be severely punished. We congratulate our friends in this city of whose misfortunes we recently had occasion to speak, in this Magazine; that they were not coach-makers to his Majesty, the beardless Francis Joseph, in which case they would have found it very unpleasant and more serious than being mulcted in \$50 and costs. But we would remind the Emperor that

"In principio, reges a populo creabantur."

WHAT THE ENGLISH LADIES SAY OF OUR CARRIAGES.—An English lady traveling in and writing from Australia says in a private letter to a confidential friend:—"that we have here American made carriages that are delightfully easy. They seem to be all springs, and in some that I have seen, the driving seat can be pushed over the seat underneath the hood, converting a double bodied carriage into a single one. Some of the roads round Melbourne are very bad, having water-holes and large boulders in every direction, and sometimes we find the most boggy part filled with stones as large as a person's head. In the American carriage we do not find much inconvenience, where in an English one we must certainly have been jerked out. However, the turnpike roads that are formed are admirable, and in time the others will be improved."

MR. ABRAHAM'S "COSY," OR NEW OMNIBUS.—The inventor of this carriage, Mr. H. R. Abraham, an English gentleman, best known as an architect, conceives that a well-balanced carriage having no front wheels to drag into holes, or toss the passengers, easy of access, and carrying only nine persons, drawn by a powerful horse equal to seven miles an hour, will effect a great saving in cost, and run easier and faster, and the results of several experiments has induced him to construct a carriage which is to test his opinion. There will be necessarily fewer stoppages, and less loss to the proprietor when partly filled with passengers. The carriage has a *coupe*—a very easy and agreeable place for three to ride in—and a roomy *rotund*, to carry four passengers; and there are seats for two more outside. The Ill. London News gives an engraving of the carriage, which as may be seen, is applicable for private use, and, as a church or jaunting carriage, is very convenient. We give this notice for what it may be worth, but all experience goes to confirm us in the opinion that *all* two wheeled vehicles are not only hard on horse flesh, but also hard for the passenger; when built in the manner Mr. A. presents. We have had examples in the cab which so recently excited the curiosity of all New Yorkers, and think that the public has placed a condemnation thereon, which will teach a lesson to our successors.

THE MANCHESTER (ENG.) THREE HORSE OMNIBUS.—The great revolution in Eng. in the mode of city travel appears to have turned the attention of omnibus proprietors to modifications in the build of their vehicles. Not the least singular among these new contrivances is the Manchester omnibus drawn by three horses abreast, the central horse being harnessed between a pair of shafts. Among the many varieties in form is one carrying seventeen passengers inside, and twenty-five outside—two on each side the driver, five on the seat behind and eight on each side-seat. The raised portion in the roof answers the purposes of a back to the side-seats, and allows room for a good sized man to walk the length of the omnibus in the centre. There is no door; and the communication between the driver and conductor is kept up by means of a bell under the driver's seat. They have double breaks to lock the front and back wheels, to facilitate sudden stoppages by a treadle on the foot-board. This latter appendage could be advantageously used by the omnibusses running upon the Russ pavement in this city, and thereby lessen the so oft repeated accidents to pedestrians in life and limb. This new English production has taken altogether a novel and unique form.

THE IRON PAVEMENT.—Our countryman, O. K. (oll korreot) Knapp has lately introduced his iron pavement into England, where he has also patented it, and as an experiment has laid it down in Leadenhall street, London, where it attracts the attention of every curious cockney. In Boston our readers will find it laid down in Court street since 1853, and which is said to have well answered the purposes for which it is designed. Those interested in such matters in New York, have the opportunity of seeing it in practical use in Nassau St., opposite the Post office, where we believe it was laid the past year.

PITMAN'S PATENT SHAFT ATTACHMENT.—Mr. Oha's Pitman—who a customer introduces to us as his particular friend—has shown us his improvement in the manner of attaching shafts to the axles of wagons. It consists in boring a three-quarter inch hole in the back end of the shaft and introducing a suitable sized round piece of vulcanized india rubber, and sufficiently long enough to form a washer on each side of the eye, then introducing the jack-bolt through it and screwing it up as in the usual manner. This

makes a very neat job, and besides effectually prevents it from either rattling or wearing out.

ROGER'S PASSENGER REGISTER.—Mr. Jas. Rogers of this city (New York) has perfected a contrivance for registering the number of passengers carried on each trip, either in the car or omnibus. It has already been adopted for some of our city R. R. cars, and will probably soon come into general use. It is a clock-like contrivance, with pointer and dial numerically numbered from 1 to 100. By pulling a strap the conductor strikes a bell in the register, which at the same time moves the pointer one figure forward. When the trip of the car is completed, the number of the passengers carried is correctly indicated by the pointer on the dial plate somewhat in the manner, we believe, of the French odometer, among whom they have been considerable time in use.

THREE WHEELED VEHICLES.—E. S. French of Binghamton, N. Y., has recently invented and patented a carriage with three wheels, and what is singular in his plan is, that he places his third wheel in the rear of the other two. He maintains that vehicles of this kind possess nearly all the advantages of four wheeled carriages, with the very desirable advantage of requiring less room for turning about. Well, we shall see how this improvement will take hereafter.

APPLYING SHAFTS TO AXLES.—In addition to our friend Pitman's invention, Mr. Mathias Soverel, of Orange, N. J., has the past month patented likewise an improvement in attaching shafts to the axle, but we think that a plan shown us by a friend in N. Y., will take all others down. We hope soon to be able to present it to our readers.

HUBS FOR CARRIAGES.—Jos. Smith, of Sunbury, Delaware Co., Ohio, and Henry Nycum, of Uniontown, Pa., have recently patented improvements in carriage hubs. The separate claims of these gentlemen are worthy of the inspection of carriage manufacturers.

SMITH'S PATENT AXLE.—Our particular friend, Mr. A. E. Smith, of Bronxville, N. Y., has shown us his recently patented axle, for which he claims many advantages, over the one heretofore in use. It is well calculated for holding oil.

STILL ANOTHER COUPLING.—Mr. E. F. Shoenberger, of Marietta, O. has patented a safety spring coupling, and there are some minor improvements in the different parts of carriages during the month past, for which we cannot find room, without over straining our chip basket, consequently they are deferred until another time.

We recommend to our friends in New York and vicinity, the notice in our advertising department, of the celebrated Varnish Manufacturers, Messrs. Pierson & Co., of Newark, N. J., who, we are told, have succeeded, after many experiments, in producing an article equal in every respect to the English. Encourage home manufactures.

THE EDITOR FROM HOME.—Mr. Saladee has just left this city for New England. On his way there, he will make a stop in Pittsburgh, Baltimore, Washington, Philadelphia, Rahway, Newark and New York City, where I hope he will have the pleasure of making the acquaintance of a goodly number of our new made friends and patrons to the Magazine. I trust our friends throughout New England, (who I have so recently left) will keep an eye on the Editor and see that he keeps about on the square while he sojourns among them.

ABR'M TERRILL.

On first page Mr. Tooker's Buggy is called "Connecticut Buggy, whereas it should have been "Rahway Buggy." A. T.

Contributors to this Number.

"RAMBLINGS.—No. 8"	Abr'm Terrill, of Ohio.
"HISTORY OF CARRIAGES AND CARRIAGE-MAKING."	E. M. Stratton, of N. Y.
"EDITORIAL CHIP BASKET,"	"
"FRENCH CRANE-NECK COACH,"	"
"OMNIBUS REVOLUTION IN LONDON,"	"
"CRANE-NECK BRETT,"	Joseph Irving, of Conn.
"SLIDING SEAT BAROUCHE,"	R. H. Brown, of Ohio.
"BROWN'S CONCORD WAGON,"	"
"A RESPONSE,"	J. W. Bradley, of Mich.
"AXLETREES,"	G. R. Groot, of Conn.
"RAHWAY BUGGY,"	S. C. Tooker, of N. J.

ANSWER TO CORRESPONDENTS.

A. & Co., of Ia.—Mr. Freeman has not, as yet, received a patent on his Buggy in the United States. His address is Burford, Canada West.

C. W. T., of S. C.—You must apply to the manufacturers for list of prices.

S. C. R., of Ohio.—Gibson's Shaft Coupling, will effectually prevent rattling.

W. W. C., of Ia.—A. E. Smith, of Bronxville, N. Y., can furnish you with those Single Leaf Springs, of his own make.

A. T., of Ill.—Messrs. Delhm & Huffman, have the exclusive right of Verleger's Patent Coupling for Pennsylvania, New York, Ohio and Indiana only. To whom Maryland and Virginia belong, we cannot inform you.

G. A., of N. Y.—We have not yet seen Mr. Green's Patent Shaft Fastener, but have a good report from it, through our Agent, Mr. Terrill, who has seen it in operation.

A. D., of Conn.—Your drawing of Coach is received, and shall appear in the Magazine soon. We hope to hear often from you.

S. & M., of Pa.—We cheerfully comply with your request, and refer you to carriage part accompanying Plate 25, Fig. 64, Vol. I, Coach-Makers' Magazine, where you will find the improvement you ask for.

C. J., of N. Y.—We have never seen Mr. Winan's improvement in Carriages, of Baltimore, but have heard it favorably spoken of.

J. R. R., of Ohio.—To comply with your request would be contrary to established rule and therefore most respectfully decline, but will introduce you to Mr. E. D. Marion, of New York City, who will be happy to serve you.

SQUARE RULE.—We are again obliged to ask the forbearance of our readers in not making good our promise in giving the above Rule; the promised contribution having never reached us, but can now assure our subscribers that in future there will be no failure in producing it, as Mr. T. is now at home and will remain here for some weeks, previous to taking a western tour.

TRANSACTIONS OF THE U. S. PATENT OFFICE.

Official List of Patents and Claims.

For Improvements in the Carriage Department from Jan. 1st, to date:

ATTACHING TOPS TO SEATS OF CARRIAGES.—Lyman Jacobs and E. C. Landon, of Castile, N. Y. We claim the described method of concealing the back rails of seats of carriages, by means of grooves in the back of the tops. And we further claim, in combination with the grooves, the mode of fastening tops to seats of carriages, by means of beveled nuts and bolts, as represented at E E, and D D, fig. 1, and F F, and G G, fig. 2.

MILITARY WAGONS.—Joseph Francis, of New York City: I wish to be understood as not claiming the transportation of boats, or segments thereof, in cradles on roads or railroads, as that has before been done.

I claim, first, constructing the bodies of road-wagons and like vehicles of corrugated plate metal, supported by a bottom frame permanently attached thereto, so as to serve to support the iron body at all times, and be used as a sled upon which to drag the superstructure, when taken off its wheels, as set forth, and made water tight for transportation, as specified.

I also claim the mode of attaching and detaching the running gear, so as not to pass any bolts which are liable to wear and cause a leak through any part of the water-tight body, but simply to connect the same with the frame as shown at fig. 3, by the outside connections and braces, so as to securely brace the iron body in proper form, and be permanently united therewith.

SPOKE MACHINE.—Thos. R. Markillie, of Winchester, Ill.: I claim the arrangement of the cam, U, on the patterns V, in combination with the tracer S, and a spring a, in the manner and for the purposes described.

I also claim the particular arrangement of the rotary cutter and tracer in combination with the plate that supports them, suspended in the manner and for the purposes described.

CARRIAGE HUBS.—S. W. Reed, of Berkshire, New York. I am aware that a loose disk brace, or flange, has been used to support the spokes of a wheel, mounted on and supported between the two flanges of a hub, and having recesses to receive the forked tenon of a spoke, formed by a saw cut, into which the disk is fitted; such a hub I do not claim, as that has been patented by J. B. Haydon.

But I claim the arrangement of the dodged mortises, D, formed on both sides of the permanent projecting flange or brace, C, by the triangularly-shaped projections, A, radiating from the tube B, for the reception of the spoke tenon, S, whereby a double row of spokes may be inserted in the hub, and supported by the flange, C, in combination with the nuts, H, to tighten or lock the spokes, and by which a broken or worn out spoke may be removed and a new one inserted in its place, without untiring the wheel, as described.

PLANING BELLES.—Wm. W. Johnson, of Clifford, Pa.: I claim the combination of the lever, E, sliding in the arms, A, graduated as shown, with the graduated lever F, and hollow cylinder or barrel, G A and F, being hinged, for the purposes set forth, or any device which is substantially the same.

SPOKE SHAVE.—Elijah Holmes, of Lynn, Mass.: I do not claim the manner of fastening the knife, viz: by a single screw clamp, chambers and sockets; but what I do claim is, the supporting the ends of the knife or plane on shoulders inclined or arranged with respect to the bearing of the stock, substantially in manner as specified, and so as to enable the cutting edge of the knife from the said bearing surface to be changed in the way and for the purpose as explained.

MODE OF ATTACHING THILLS TO AXLES.—Allen Greene, of Providence, R. I.: What I claim is, the use of the leather, gutta percha, or other similar substance in attaching the thill or shaft to the axle.

BITS FOR BORING FELLOES AND TENONING SPOKES.—Horatio McGrath, of Meigs Creek, O.: What I claim as my invention and desire to secure by letters patent is, the single twist auger with a tapering shell-pod, for the purpose of boring and tapering a mortise at one operation, as herein described.

I likewise claim the tenon auger, constructed as herein described, with its auxiliary adjustable cutter, to reduce the superfluous timber, and with its finishing bits arranged to cut a tapering tenon, with a shoulder at right angles to its axis.

BORING CARRIAGE WHEELS.—Chas. Schmidt, of Union, Mo.: I claim a new and useful machine for boring carriage wheels.

BUGGY WAGONS.—Thomas Winans, of Baltimore, Md.: I claim the combination of bent bars and springs, arranged substantially as described, to connect the fore and hind axles, support the seat, with both the requisite firmness and elasticity, and to permit the front wheels to pass under the seat in turning short round.

THREE WHEELED VEHICLES.—Elisha S. French, of Binghamton, New York. I claim the combination and arrangements at the rear of the vehicle, substantially as shown and described, of the castor hung swiveling wheel, F, in such connection with the perch or body, that while in the forward run of the vehicle the said wheel runs in a parallel course central to the other two advance wheels, and at considerable distance behind them, it in backing the vehicle is caused to occupy a like parallel and central position, with its rim or tire in direction of the travel but in closer proximity to the fore wheels, and on the reverse side of the swivel towards the front end of the vehicle, and out of the way, as it were, whereby additional facilities are afforded for backing the vehicle in a crowded thoroughfare, and the other advantages specified are obtained.

BENCH VISE.—Thomas Gissinger, of Alleghany Pa.: I claim the projection g, and the projections, I and K, arranged as described, and for the purpose set forth.

CARRIAGE SPRINGS.—Richard Montgomery, of New York City.: I claim the corrugated spring, D, when used in connection with the spring A, substantially as described.

ADJUSTABLE CARRIAGE SEAT.—D. N. Flanders, of South Royalton, Vt.: I claim the additional revolving seat, B, hinged upon the bed piece, so that it will turn and assume the two positions already described, and thus make the carriage convenient for the accommodation of two or three passengers, as desired.

SAFETY SPRING COUPLING.—Edwin F. Shoenberger, of Marietta, Pa.: I claim the shape and construction of the coupling so that the shafts of the carriage can be attached to the axle by merely dropping the ends downward into the boxes in a vertical position, and their combination with the spring to prevent noise or rattling, substantially as described.

OIL BOX FOR AXLES WITH CONICAL JOURNALS.—William D. Titus, of Brooklyn, N. Y.: I claim constructing the cone or cones made close, with an internal oil or grease chamber, a, round a cylinder or tube, e, forming the centre part longitudinally of the cone, and providing the said cone on its periphery at opposite ends and on reverse sides with sluices or openings, x and s, essentially as and for the purposes specified.

APPLYING SHAFTS TO AXLES.—Charles S. Pitman, of Swampscot, Mass.: I claim the manner in which I have applied such a shaft and axle, the same consisting in extending the india rubber bolt protector each way beyond the holding strap, in combination with extending it entirely around the bolt, as specified, whereby under any upward or downward movement of the shaft, not only the bolt but the connection fork will be protected from wear and liability to make a noise, while under the sudden starting or stopping of the draft animal connected to the shaft, and the strain on the bolt and fork will be eased by the spring or elasticity of the bolt protector.

HUBS FOR CARRIAGES.—Joseph Smith, of Sunbury, Delaware Co., O.: I claim the combination with the axle of vehicles of a segmental box, c, c, slotted cylinder, d, and friction rollers, r' r', all arranged and operated substantially as set forth.

WAGONS.—B. B. Brundy, of Walton, N. Y.: I claim the mode of combining the springs and axles of wagons, substantially as herein set forth.

BOX FOR CARRIAGE HUBS.—A. C. Garratt, of Roxbury, Mass.: What I claim as new is, the combination and arrangement of this peculiar lubricator, or its equivalent, with the recess groove or oil chamber of the box, in the manner set forth and shown in the drawings, so as to form an improved combination wheel box for carriage axles.

COUPLING FOR THE JOINTS OF FELLOES.—S. A. Garrison and D. C. Morey, of Chelsea, Mass.: We do not claim of itself a mere over-lapping brace, tightened by a separate bolt, as is used for stiffening joints; but what we do claim is, the stay bolt composed of the head, stay and bolt, as described, and in combination with the embracing cap piece, tightened as specified for securing the joints of fellows from lateral movement, in addition to security against radical action.

SAFETY APPARATUS TO BE APPLIED TO HARNESSES AND THILLS OF VEHICLES.—Joseph H. Wilson, Jr., of Nashville, Tenn.: I claim attaching the horse directly to the shaft C, of one-horse vehicles, by means of the boxes A, which are secured to the harness as shown, a box at each end of the horse, the boxes being constructed as shown, with two hinged or jointed sides, so that they may be opened when necessary by the driver, for the purpose specified.

WHEELWRIGHT MACHINE.—C. H. Guard, of Brownsville, N. Y.: assignor to J. A. Scroggs and C. H. Guard, of the same place. I claim the combination of the boring and mortising shafts, C C, with the levers E' E', through the medium of the toothed saddle, I I, the toothed segments, H H, and the oscillating shafts, D D, or their equivalents, substantially in the manner and for the purpose herein set forth.

SKELIN FOR AXLE ARMS.—John M. Burke, of Danville, N. Y.: I claim constructing the skelin, C, of a metal plate, which is bent in conical or taper form, with a space or opening, a, in its upper part, the skelin being secured to the arm, B, by means of the bolts, B B, substantially as shown and described.

BENCH PLANES.—Ebenezer Mathers, of Morgantown, Va.: I claim the construction of bench planes with the stock in two pieces, connected by a metal cap as set forth.

ATTACHING HUBS TO AXLES.—H. B. Simonds, of West Hartford, Vt.: I claim securing the hub, A, upon the arm, b, by means of the clutch, C, screw, D, and clamp or box, E, the inner end of the clutch being of semi-cylindrical form, and having a flange, f, on it, which flange is fitted in a groove, c, in the outer end of the arm; the screw, D, passing through the outer end of the hub into the clutch; and the back part of the arm, having a collar d, upon it, which collar is fitted in the back end of the hub, said collar being covered by a cap or box, E, having a washer within i, substantially as described.

CARRIAGE TOPS.—Henry Hayes, of Quincy, Illinois.: I claim the plate or circle, c, having the slat iron of the front bow projecting from it, working on a pinion in the standard, h, in connection with a spring latch or pawl, fitting into notches in the plate by means of which the top of the carriage is sustained in an elevated or half elevated position substantially as described.

BENDING WOOD.—J. C. Morris, of Cincinnati, Ohio.: I claim the clamps, 6, 6, to prevent end expansion, and the levers 7 7, working on fixed fulcrums when in operation, all substantially as and for the purpose set forth.

CARRIAGE HUBS.—Henry Nycum, of Uniontown, Pa.: I do not claim a hub, the central portion of which is provided with mortises or recesses for the reception of the spokes, as I deem such a hub impracticable from its very nature, as it limits the number of spokes in the hub or wheel to less than are actually necessary.

Nor do I claim a hub composed of concentric rings of alternate iron and rubber with the spokes abutting against the outer ring, which would so enlarge the hub as to make it useless for my purpose.

But I claim a hub composed of a back and front section, A B, and having a thin metallic tube or ring, E, independent of each, centrally placed between against which the inner ends of the spokes abut when said sections are made so that, in removing the back one, A, the pipe or box of the hub shall also be removed or removable with it to facilitate the property introducing of a new spoke, substantially as described.

BOX FOR AXLES.—A. E. Smith, of Bronxville, N. Y.: I am aware that the flues have been cast with grooves in them, and that one of these grooves has been made to connect by a tube along the outside of the box, with the face of the hub, so that oil might therefore be poured in, so as to avoid the necessity of taking the wheel off. These grooves cannot be said to act as reservoirs strictly, and they also have taken away too much of the bearing surface, so that the axle wears in the box along the side of the groove.

I do not claim making slots in the box in the line of the axle or reservoirs communicating with the axles by holes or funnel-shaped apertures.

But I claim the combination of two or more longitudinal narrow slots in the direction parallel to the axis of the box with enlarged longitudinal cavities, substantially as described, and for the purpose specified.

BOXING CARRIAGE WHEELS.—Chas. Schmidt, of Union, Me.: I claim the method of boxing carriage wheels as before substantially described.

CARRIAGE COUPLING.—Thos. Choje, of Detroit, Mich.: I claim attaching the perch of a vehicle to the front axle in a manner which will enable it to turn or rock by means of a slotted T-shaped bar, which is attached to the front axle by means of a clip, g, and the sides c and a both working in the slots at right angles as clearly shown in fig. 2, substantially as shown and described.

OMNIBUS REGISTERS.—James Rodgers, of New York, N. Y.: I claim the mode of blocking the ratch-wheel K, by making the operating pawl D, pass at the end of its motion, beneath or against the ratchet-teeth, so as to lock the wheel in place, substantially as specified.

PROSPECTUS FOR VOL. 1, 1855, OF THE COACH-MAKERS' ILLUSTRATED MONTHLY MAGAZINE.—REPRINT—FOURTH EDITION.

Every individual who is a subscriber to the present volume of this journal, very soon perceives that without the first volume his work is incomplete, and therefore does not possess to him that practical worth it would be susceptible of doing were it complete from the first No. Owing to this fact, a demand has been created for the back numbers, (among those who have but commenced with the present volume,) so great that we are induced to offer this Prospectus, and propose to reprint a fourth edition as soon as we shall receive 1000 subscribers for the same, (of which No. we now lack but one half,) and if all those who have already made inquiries concerning the back numbers will send in their names, the 1000 can be made out immediately, and we will forthwith proceed to reprint a large edition. The volume will be neatly bound in muslin, with morocco gilt back and corners, and will be furnished to single subscribers at \$4.00, or ten volumes for \$30.00, free of postage to any part of the United States. The money to be forwarded as soon as we notify the subscribers that the volume is complete, and ready for circulation, or to the Post Master on delivery. At present we want only your names and orders for the vol. 1.

OUR PRINTING ROOMS.

Advertising is one of the grand secrets to success in any or all mechanical pursuits, and the individual who in this age of printing neglects to give that publicity to his business which the times demand, is standing in his own light, between himself and that very dollar for which he is so eagerly contending, and in no branch of mechanism is it more called for than among the coach-makers. Every proprietor who is doing a tolerable business, should have a standing advertisement of his factory with correct illustrations of the different kinds of vehicles he is manufacturing, or prepared to build to order.

Having now over two hundred fine engravings of all the latest fashions of carriages, we propose to furnish each proprietor who is desirous of getting up a good advertisement, with a chart neatly illustrated with the different styles he may select from our stock of engravings, with his card and such other matter as he may desire to have printed in the centre, and the whole enclosed in a beautiful border, which he can have suspended in all public places, and send a copy of the same to any person from whom he wishes to solicit an order for a carriage. What would attract more attention than to send to the livery keeper, into the farmer's family, or indeed to any one who you think would be likely to want a carriage, than one of those charts which at once represents the various kinds of vehicles you can furnish them? Surely nothing; therefore it will be of more benefit than any other way by which you can advertise. We will furnish such charts for from \$10 to \$50 per hundred copies, owing to the size, the number of engravings, number of colors in which they are to be printed, &c. &c. Orders solicited.

OUR REGISTER, OR AN IMPORTANT SYSTEM FOR SECURING A SITUATION AND OF OBTAINING HANDS.

Proprietors in our department are often in need of help, and are frequently put to great expense, inconvenience, and loss of time in obtaining them, and there are hundreds of journeymen who are at times in want of situations, and many of them are compelled to waste their limited means in search of employment.

A great number of our subscribers have lately inquired of us whether we could not establish some system through which all such wants might be immediately supplied, and at the same time obviate the trouble above referred to. Now that such a system would be of vast importance and highly beneficial to the craft, will be universally admitted, and after a due consideration of the subject, we are induced to adopt the following plan, by which both proprietor and journeyman will be equally benefitted.

Viz: All journeymen out of employment, or likely to be so in a short time, or such as are desirous of changing their location, can, immediately upon such conclusion, address a letter to this office, stating the same, and such other facts as they may see proper, with a reference to their present or previous employers, and their names (with date, &c.) will be placed in a register kept expressly for that purpose; and all proprietors in want of hands will likewise address a letter to us, stating the kind of workman wanted, and all other particulars necessary, and by return mail the said party will receive a copy of all the names on our register (of that class wanted) with address, references, &c., when a correspondence can be opened with one or all of the names desired, and a workman immediately procured; and in case no workman of the class inquired after, is found in our register, the wants of such proprietor shall immediately be made known through the Magazine without additional charge; and all journeymen thus registered, as soon as a situation has been obtained, will advise us of such fact without delay, stating by whom they are employed, which item will be placed in the register in connection with their names, for future reference.

TERMS OF THE REGISTER.—All journeymen sending their names for the Register, will enclose 25 cents in postage stamps, and each proprietor is required to enclose \$1, for which he will receive a copy of the Register as above, or his wants advertised in the Magazine, so that in either case he shall be sure of hearing from the kind of workman wanted.

OUR DRAWING TABLE.

We have now secured the exclusive services of a carriage draughtsman, who, from his long experience and close application to the art, stands unequalled by any other of the same profession in this country. Having been engaged in all the principal European cities, and for the past year in the city of New York, he has acquired a knowledge of the various styles of carriages among the different nations, which but few possess, and consequently is capable of representing a greater variety of style in his designs than could otherwise be expected.

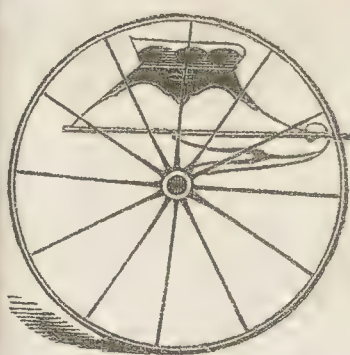
From our Drawing Table the craft can obtain a sketch of any peculiar design or fashion for a vehicle, which they may desire to have, aside from what they see illustrated in the Magazine. Almost every mail brings us an application from some part of the country, for a design of a certain kind of carriage, which is peculiarly adapted or limited to a certain purpose or a certain location, (and which peculiarity forbids its appearance in the Magazine.) One, for example, wishes a certain style of Band Wagon; another a design for a Peddler's Wagon for this or that purpose; another a Hearse; an odd kind of Coach; and others again, a design on a large scale, for a Factory, &c.; all of which can now be furnished at this Office, on the shortest notice, and on the most reasonable terms.

Drawings executed either plain or colored.

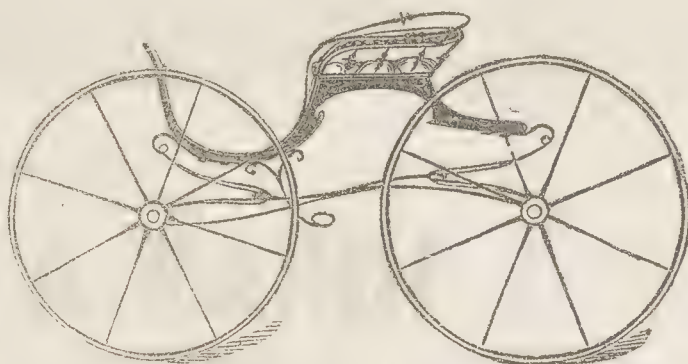
SPROUT'S COMBINED CARRIAGE SPRING.

PERCH AND BRACES!

THREE COMBINED.



No. 1.—\$10.



No. 2.—\$15.



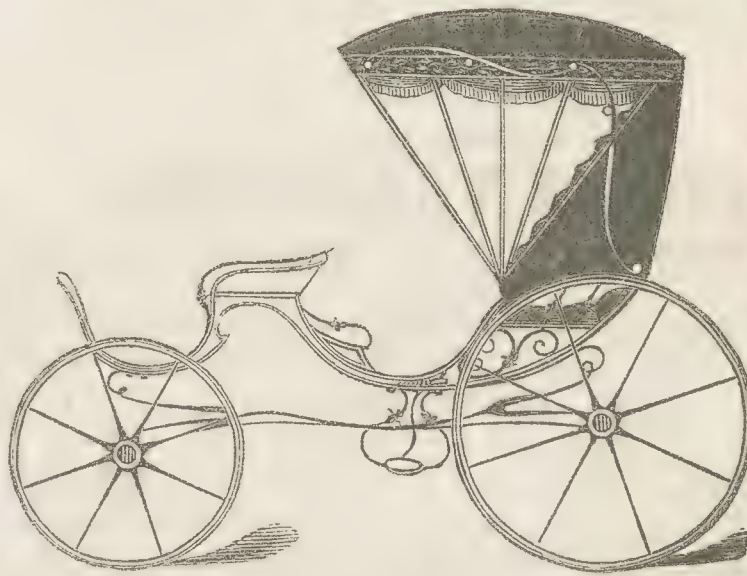
No. 4.—\$16.



No. 3.—\$16.



No. 5.—\$19.



No. 6.—\$22.

In offering this Spring to the Coach-making public we most respectfully call the attention of the Craft to the following advantages they embrace over the ordinary Elliptic Springs:

1st. Possessing double the strength and elasticity. 2d. A Carriage can be built much lighter. 3d. Much less concussion to the passengers. 4th. Its liabilities to get out of repair are not near so numerous. 5th. The wheels adjust themselves to the road without the carriage rocking. 6th. Springs designed for a heavy load will carry a lighter one with ease. 7th. It serves effectually as a perfect brace to the whole vehicle. 8th. Requires much less labor, wood and iron to construct a carriage. 9th. The whole connection being of Spring steel, a gentler motion is felt (instead of sudden jars, as with the ordinary perch and stiff braces,) and thus gives relief to the entire carriage.

These Springs, if applied to the carriage according to the directions, (accompanying them) are not only warranted to stand, but to accomplish every point set forth in this advertisement, and any time within one year should they fail to perform, they can be returned and the money refunded.

We are well aware that numerous patents have been granted within the last three years for improvements in Carriage Springs, and after the right was extensively sold to the Coach-makers throughout the country, many of them proved perfect failures, and thus shocked the confidence of the craft generally, in improvements for this branch of the carriage. But the proprietors of this Spring having full confidence in their improvement, have at great expense erected large factories and employ the best facilities for their manufacture; and now offer to the public (not the right to make, &c.,) but the Spring itself, and in a manner that none will be the loser to give them a trial, at the following low

PRICES.

Sulky Springs.....	per sett,	\$10 00
Light Buggy Springs.....	"	15 00
Top Buggy.....	"	16 00
Slide Seat Buggy Springs.....	"	17 00
Four Passenger.....	"	19 00
Six.....	"	22 00

Persons sending their orders for a peculiar shaped Carriage should take the side or rocker pattern of the different bodies to which the Springs are to be applied, and mark them on the white side of wall paper, and also make the points at each end of the pattern where they desire to have the body loop to terminate, and forward the same, and the Springs will be made to harmonize with the shape and length of the bodies; or if the Springs are in-

tended for any carriage illustrated in this Magazine, the manufacturers will understand what is wanted, by giving the figure of such illustration, and will make them accordingly.

All orders from the South and West must be sent to C. W. Saladee, Columbus, Ohio, who has taken the agency of the Southern and Western States. From all other territory address

SPROUT, BURROWS & CO.,
Hughesville, Lycoming Co., Pa.

TERMS:

All orders for a less sum than \$50, must be accompanied with the cash. Those exceeding that amount, can have four months; payable in bank.

RECOMMENDATIONS:

REPORT OF THE N. Y. STATE AGRICULTURAL SOCIETY—SPROUT'S COMBINED CARRIAGE SPRINGS.

An entire new arrangement—getting double the resistance and elasticity, with less expense and weight of metal. The Committee recommend it as a valuable improvement a silver medal. In the Committee's awards they have given the Society's Silver Medal to the most meritorious articles.

J. B. LANGWORTHY,
JOSEPH SLOCUM.

I have used about one thousand dollars worth of Sprout's Combined Springs, and have not heard of the least dissatisfaction, but on the contrary universal praise. I have them under my own carriages for use, and know them to be the easiest and most durable springs that can be applied. Carriages can be got up with much greater despatch, and at less expense. All that part most liable to get out of repair is covered by these springs and warranted. They vibrate freely, and their motion over rough roads is peculiarly delightful. I can truly say I know of no spring equal to them now in use.

Milton, June 18th, 1855.

I am the owner of a livery stable, and have used nearly all kinds of springs, and have found none equal to Mr. Sprout's for ease and durability. The tops of buggies keep their places much better, not sagging sideways, and for rough roads nothing can equal them. I can save 50 percent, in repairs by using these springs.

Milton, June 1855.]

J. WILHELM.

I had a 2 horse passenger wagon supplied with elliptics, which was, owing to the roughness of the roads continually getting out of repair.

I had them exchanged for a set of Mr. Sprout's, since which time I have had no trouble; often carrying double what he warranted them to do. They have been in continual hard service for over two years, and are now as good as ever. They carry one or more persons with perfect ease. I also have them under buggies in my livery stable, and find them attended with much less expense than any other Spring.

Muncy, Pa., June 1855.

T. W. JOHNSON.

We, the undersigned, have had the old elliptic taken out, and Mr. Sprout's put in place and although attended with considerable cost, yet the difference in ease and durability far exceeds the trouble and expense.

JOHN F. McLAIN, Hughesville, Pa.
J. M. B. PETRIKIN, Att'y at Law, Muncy, Pa.
WM. M. RANKIN, M. D.
H. WOOD, M. D.

A short time since, as I was traveling to a neighboring county, just before me I saw a buggy with Sprout's Combined Springs, which seemed to move over the road with all ease, the wheels working into ruts, over roots and stones, at the same time the body keeping its horizontal position, while that of my own tossed me from side to side, rendering it extremely difficult to retain my seat. I sold my buggy the first opportunity, and purchased one with Sprout's Combined Springs, and now I have the pleasure of riding as easy as my neighbors.

Hughesville, Pa., June 18, 1855.

RUSSEL BODINE.

I have a buggy and sulky with Sprout's Combined Carriage Springs, which I have used two years. In my opinion they exceed any thing of the kind ever offered to the public. Persons who consult ease, after having used these Springs, can never be persuaded back to the old elliptics.

Hughesville, Pa., June 18, 1855.

JOHN H. ROTHROCK, M. D.

CAUTION.

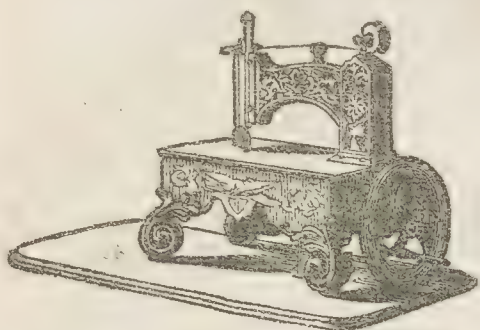
Springs of an inferior quality have been manufactured and sold by persons without authority. This is to caution the purchaser as well as the vender, against such infringement, as they will be dealt with according to law.

SPROUT, BURROWS & CO., Proprietors.

C. W. SALADEE, Agent for the South and West.

THE COACH-MAKERS' MAGAZINE.

NICHOLS, LEAVITT & CO.,
Manufacturers of
STITCHING MACHINES,
for Carriage Work of every description.
411 BROADWAY, N. Y. }
GORE BLOCK, BOSTON. }



OUR MACHINES ARE PARTICULARLY ADAPTED TO CARriage Stitching, Hemming, Binding, &c. making a seam exactly alike on both sides, and using Cotton and Linen equally as well as Silk. There is a saving of 50 per cent. in thread by using our machines, over the loop stitch machines, and we make a seam that WILL NOT RIP OR PULL OUT. We have received the premiums at all the principle Fairs throughout the country, and respectfully request those about purchasing machines to call and examine them in operation. They do the work much neater, and as much in one hour as can be done in ten by hand. Every Machine is warranted and orders promptly filled. Circulars sent upon request.
[April 1856-1y]

**OLDEST BENDING ESTABLISHMENT
IN THE UNITED STATES.**

BEDFORD, CRANE & CO.,
MANUFACTURERS OF
CARRIAGE BOWS, BENT FELLOWS & SHAFTS.
No. 56 Mechanic Street,
NEWARK, N. J.
S. BEDFORD, }
S. O. CRANE, }
I. B. KILBURN, }

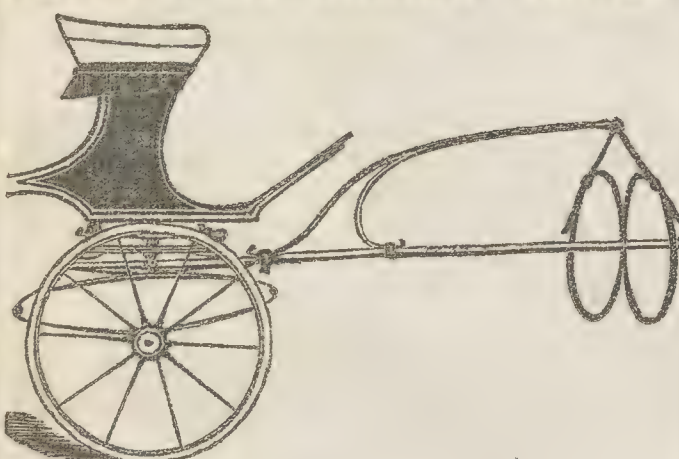
OUR FIRM BEING ALL PRACTICAL CARRIAGE-MAKERS, Manufacturers and Dealers can rely upon having their orders filled promptly as per order.
[May-1856.]

JAMES PIERSON & CO.,
MANUFACTURERS OF
COACH VARNISHES,
Railroad Avenue, Cor. Chestnut Street,
NEWARK, N. J.

To compete in qualities and prices with Nobles & Hoare's English Varnishes.

PRICES AS FOLLOWS:
Best Wearing Body Varnish.....\$4 00
Hard Drying ".....4 00
Polishing, Body, (extra).....3 00
Coach.....2 50
Carriage or Running Parts.....2 25
Japan.....
Also, Furniture Varnishes No. 1 and 2 extra Light, Flowing, Polishing, Scraping and Shop, superior to any in Market.
Manufacturers and Dealers who have heretofore despaired of procuring an article of American manufacture equal to the English in every respect, are only invited to give the subscribers a trial, as they can submit their varnishes to the test of being placed side by side with that imported. In order to satisfy consumers that our ENGLISH is in every respect what we represent it to be, we can refer them to some of the first coach-makers in New York.
Mr. Weldon, one of our firm, is a practical coach painter.
May-1856-1y

SAFETY EXTENSION CRANE,



FOR ALL CARRIAGES.
THE ABOVE ENGRAVING SHOWS THE OPERATION OF this most useful invention for preventing horses from falling under Carriages; the shape and form of it can be adapted to any description of Carriage, and it has already been tested and satisfactorily sustained its reputation, on several Omnibusses running on Broadway, N. Y. Patent Rights for sale, and also Cranes furnished to order, by application to
W. RAMENA & CO., 13 South William Street, N. Y.
May 1856.

**SADDLE, HARNESS & TRUNK
MANUFACTORY,**
No. 76 Third Street, bet. Walnut and Vine,
CINCINNATI, OHIO.

KEEPS ON HAND A LARGE ASSORTMENT OF SADDLES, Harness, Trunks, Horse Blankets, Whips, Carpet Bags, Brushes, Bits, Buffalo Robes, and Valices, which will be sold at Eastern prices. Second hand Harness always on hand. Repairing done with dispatch.
D. S. CARRICK.
May-1856.

On and after April 1st, 1856, I will be located at St. Louis, Missouri, and design continuing my business as heretofore. To those who have so kindly favored me with their orders, I would return many thanks, and in future offer them and all others my services, feeling assured from the past, that I can purchase stock for them and charge a reasonable commission, and be equally as cheap as they can go east and select for themselves from the different manufactories. I shall continue to keep on hand a small stock of the leading articles, such as Enameled, Bow, and Dash Leather, Enamel Cloths, Carriage Bands, and such other Goods as cannot at all times be gotten short notice in the East. I shall also keep a supply of No. 1 Springs, manufactured for me expressly and bearing my brand. They will be fully warranted equal to any made.
My main business will be receiving orders, or by samples, that can be seen at my office. Orders so selected by my customers will be forwarded directly to the Eastern manufactories, and when filled will be forwarded by the manufacturer directly to the parties who want the goods. Shall continue to sell as heretofore, at manufacturer's prices, and add 3% per cent. commission for my trouble, and if time is wanted, will add 5 per cent. additional for four months. Bills of \$500 and over, will be divided into three equal payments, at four, five, and six months, payable in all cases by draft, with current exchange on New York. I need hardly point out the advantage to the buyer, as they can easily see there is a certainty of getting exactly what they order, if it is possible to get it, as there is not that inducement on my part to substitute something near what is ordered, that there would be, provided I had, as is customary, a large stock of goods on hand, at the same time they are always certain to get their stock at the manufacturer's lowest prices.
Goods ordered by me for parties living at points that it will be necessary to ship first from New York and then to the parties ordering, will be charged the freight and insurance from the East to St. Louis, whatever it may be. I shall visit my customers either in person or by agent, hereafter, to solicit orders at least twice each year, and shall fully warrant all goods equal to sample. Orders for price lists by mail shall be promptly attended to. My Office will be at Jno. S. Thompson, Esq., No. 30 and 32 Second Street, St. Louis, Mo.
Yours, &c.,
HIRAM A. PRYOR.

HIRAM A. PRYOR,
WHOLESALE DEALER IN
Saddlery Hardware, Coach Trimmings, &c.
NO. 30 & 32 SECOND STREET, ST. LOUIS, MO.

THE PRICES BELOW ARE SUBJECT TO ANY FLUCTUATIONS THAT MAY OCCUR.
Newark Enameled Lea. large hides per ft.....16 1/2
" " " med. ".....16
" " " fancy colors ".....18
" " " sil. & g'd br'z ".....20
" Collar and Railing Leather ".....16 1/2
" Dash Splits, ".....10
" Enam'd Duck, 50 in. extra, pr yd.....60
" Drills, ".....40
" Canvass, 5-4 ".....23
Can furnish other cloths from 5 to 10 per cent. cheaper, if wanted.
Fitch's New Haven Springs.....per lb. 10
Extra for French Head, if wanted,.....per set, 25
Rowland's Philad. Springs.....per lb 11
Extra, for French Heads,.....per set, 12 1/2
Less 5 per cent. on Rowland's Springs,
Silk Lace.....per yard, 58
Worsted Lace 2 1/2 in....." 20
" 3 "....." 25
Worsted and Silk Lace, 2 1/2 in....." 25
" 3 "....." 30
" S. and P. "....." 4
Silk....." 5
Less 15 per cent. on all Laces,

IVE'S CONNECTICUT AXLES, VIZ:
Bolt Mail, 1 1/2 in.....per set, 4 00
Inside screw, 1 1/2 in....." 4 00
Outside "....." 4 50
" " long shank "....." 5 50
Iron Nut Taper Axles, 1 1/2 in, sol. col....." 3 00
Sil. Cap Nut "....." 3 25
Iron Nut, H. P. "....." 3 25
Sil. C. "....." 3 50
Iron Nut Taper " case hard "....." 3 75
Sil. C. "....." 4 00
Iron Nut H. P. "....." 3 75
Sil. C. "....." 4 00
All other sizes in proportion to 1 1/2 in
Stump Joints, 1 1/2 in.....per doz. 1 12 1/2
" 9-16 "....." 1 25
" 3/4 "....." 1 37 1/2
Less 5 per cent. on the above Joints.
Stump Joints, 1 1/2 in. extra.....per doz 1 25
" 9-16 "....." 1 37
" 3/4 "....." 1 50
Pittsburgh Springs.....per lb. 10
Axles.....6 1/2
Less 5 per cent. on Pittsburgh Springs and Axles.
Brass Bands, 1 in.....per set 38
" " light....." 44
" " common....." 50
" " heavy....." 75
" Philad'a " x. it....." 41
" " light....." 63
" " common....." 75
" " heavy....." 1 00
" Jersey Mail " light....." 63
" " common....." 75
" " heavy....." 1 00
Screw Cap, Japaned, Brass Fronts....." 1 25
" " all over "....." 1 75
" " Silver "....." 2 25
" " Japaned "....." 1 50
Silver Boston Bands, x. it....." 56
" " light....." 64
" " common....." 72
" " heavy....." 1 00
" Philad'a " x. it....." 64
" " light....." 85
" " common....." 1 00
" " heavy....." 1 38
" Jersey Mail " light....." 85
" " common....." 1 00
" " heavy....." 1 38
" Reflector Mail B's, rosette centre,....." 2 25
" plain "....." 2 00

GEORGE H. KNIGHT,
PATENT ATTORNEY AND SOLICITOR,
North East Corner of Vine & Fourth Streets,
CINCINNATI, OHIO.

—REFER TO—
Judge McLean, Cincinnati, Ohio, John Curtis, Cincinnati, Ohio,
Edgar Conkling, " " Wm. H. Clement, Morrow, Ohio,
Royer & Co., " " Greer & Co., Dayton,
Geo. C. Miller, " " [May-1856]

PITTSBURGH, March 18, 1856.
To those who have so kindly favored me with their orders, I would return many thanks, and in future offer them and all others my services, feeling assured from the past, that I can purchase stock for them and charge a reasonable commission, and be equally as cheap as they can go east and select for themselves from the different manufactories. I shall continue to keep on hand a small stock of the leading articles, such as Enameled, Bow, and Dash Leather, Enamel Cloths, Carriage Bands, and such other Goods as cannot at all times be gotten short notice in the East. I shall also keep a supply of No. 1 Springs, manufactured for me expressly and bearing my brand. They will be fully warranted equal to any made.
My main business will be receiving orders, or by samples, that can be seen at my office. Orders so selected by my customers will be forwarded directly to the Eastern manufactories, and when filled will be forwarded by the manufacturer directly to the parties who want the goods. Shall continue to sell as heretofore, at manufacturer's prices, and add 3% per cent. commission for my trouble, and if time is wanted, will add 5 per cent. additional for four months. Bills of \$500 and over, will be divided into three equal payments, at four, five, and six months, payable in all cases by draft, with current exchange on New York. I need hardly point out the advantage to the buyer, as they can easily see there is a certainty of getting exactly what they order, if it is possible to get it, as there is not that inducement on my part to substitute something near what is ordered, that there would be, provided I had, as is customary, a large stock of goods on hand, at the same time they are always certain to get their stock at the manufacturer's lowest prices.
Goods ordered by me for parties living at points that it will be necessary to ship first from New York and then to the parties ordering, will be charged the freight and insurance from the East to St. Louis, whatever it may be. I shall visit my customers either in person or by agent, hereafter, to solicit orders at least twice each year, and shall fully warrant all goods equal to sample. Orders for price lists by mail shall be promptly attended to. My Office will be at Jno. S. Thompson, Esq., No. 30 and 32 Second Street, St. Louis, Mo.
Yours, &c.,
HIRAM A. PRYOR.

CARRIAGE BOLTS.
4 in. and less, of all the above Bands, same price, except Reflector rosette centre, sizes from 3 1/2 to 4 in. 15 cents extra.
Patent Leather Pressing Machines, 2 pairs, dies, roller and stamps, per set,.....16 00
Patent Leather Pressing Machines, 4 pairs, dies, roller and stamps per set,.....22 00
Hand Presses, 2 sets dies, roller, and stamps.....7 50
Knob Hole Punches.....75
Less 10 percent. on the above Presses.

TIRE BOLTS.
3-16, all sizes.....\$1 05
" " " "....." 1 10
Square Head and Counter sunk same price as Carriage Bolts. Prices above are for 100 bolts. 20 per cent. off all the above bolts.
Plant's Connecticut Bolts cost about 33 per cent. less than Philadelphia.
Axle Clips, Nos. 0, 1 and 2.....per doz. 50
" 3,....." 56
Less 20 per cent. on clips.
Shackles, Clip Connections,.....per doz. pr. 12 00
" No. 1,....." 10 00
" 2,....." 9 50
" 2, cheap....." 7 20
Pole Eyes, " 1, 2....." 4 00
Less 15 per cent. on Shackles and Pole Eyes.

NEWARK MORTICED HUBS.
6 in. and less.....per set, 75
6 1/2 "....." 87
6 3/4 "....." 1 00
6 1/2 "....." 1 00
Delaware Spokes, an ext. a article, 1 1/2 in. and less.....2 55
Best Eastern Malleable Iron.....per lb. 10
Ivory Head Nails, No. 1.....per gro. 29
" 2....." 31
" 3....." 37
Ivory Pull-to Handles.....per pr. from 1 10 to 2 00
" Inside "....." 1 00 " 1 20
" Knobs "....." 2 50 " 5 00
" Head Screws....." 2 25
Silver and Brass Plain and embossed, Props and Nuts, pr set 18
Silver Chased Props and Nuts....." 1 50
Jap. Sil. and Brass Lining Nails.....per paper, 6
Sil. Band Nails, solid heads.....per gro. 28
Brass.....25
Brass and Silver Stump Joints.....per doz. 4 50
Blake's Japaned 1 Knobs, No. 3.....per gro. 55
" 2....." 50
Brass Capped " 2 & 3....." 75
Silver " 2 & 3....." 80

Also, Cloths, Damasks, Paramittas, Curtain Silks, Worsted and Silk Fringes, Holder Tassels, Hammer Cloth and Rug Fringes, &c. of all colors and qualities; Oil Cloth Carpet all widths, Varnish, Tacks, Curled Hair, Silver Lamps, Pole Yokes, and Hooks, &c., &c., and everything else used by Carriage Manufacturers.
The above prices are nett cash, also freight added, at the rate of 1 1/2 cts per lb., and a commission of 3% per cent. If time is wanted, an additional 5 per cent. is added for 4 months.
[June 1855.]

PLATE XV.

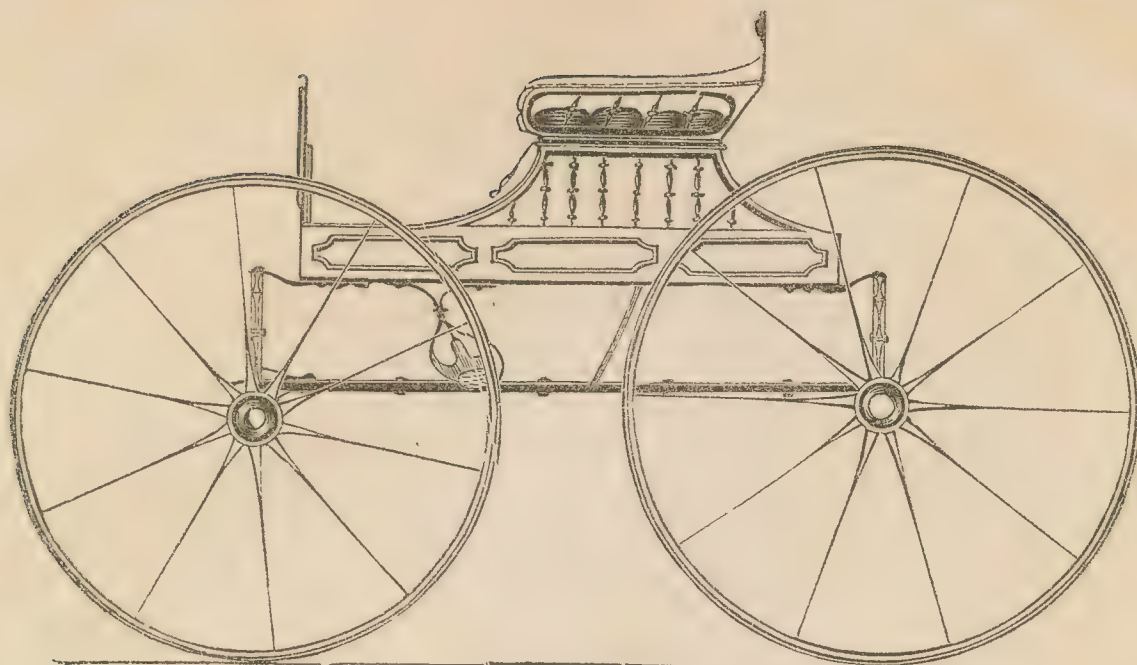


Fig. 34.—South Carolina Buggy.

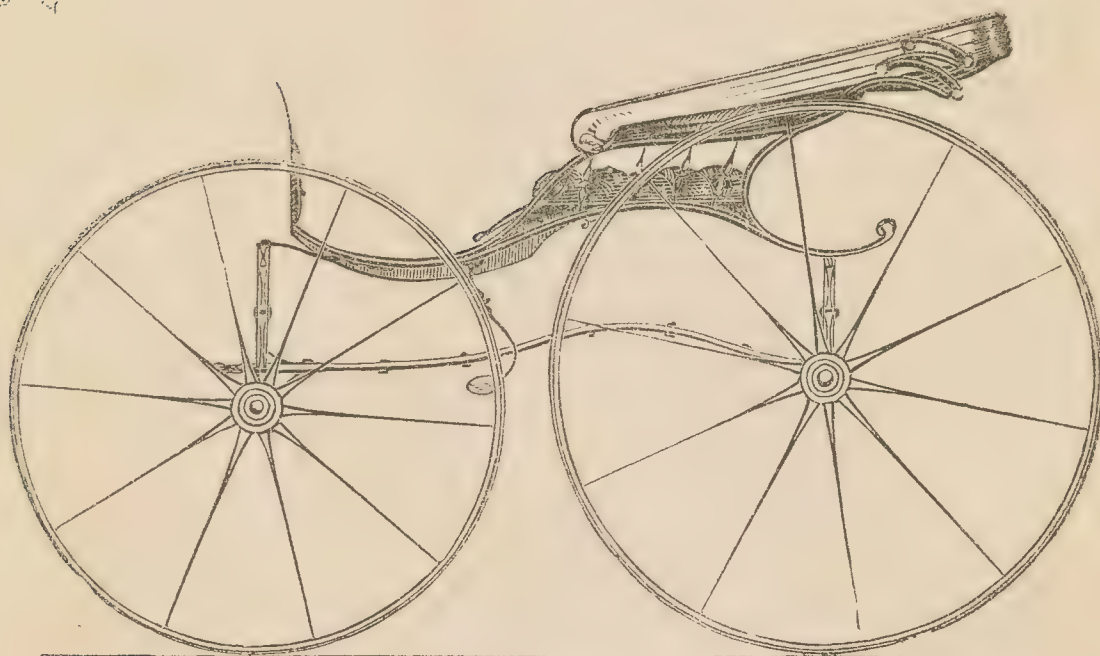


Fig. 35.—Boston Phaeton.

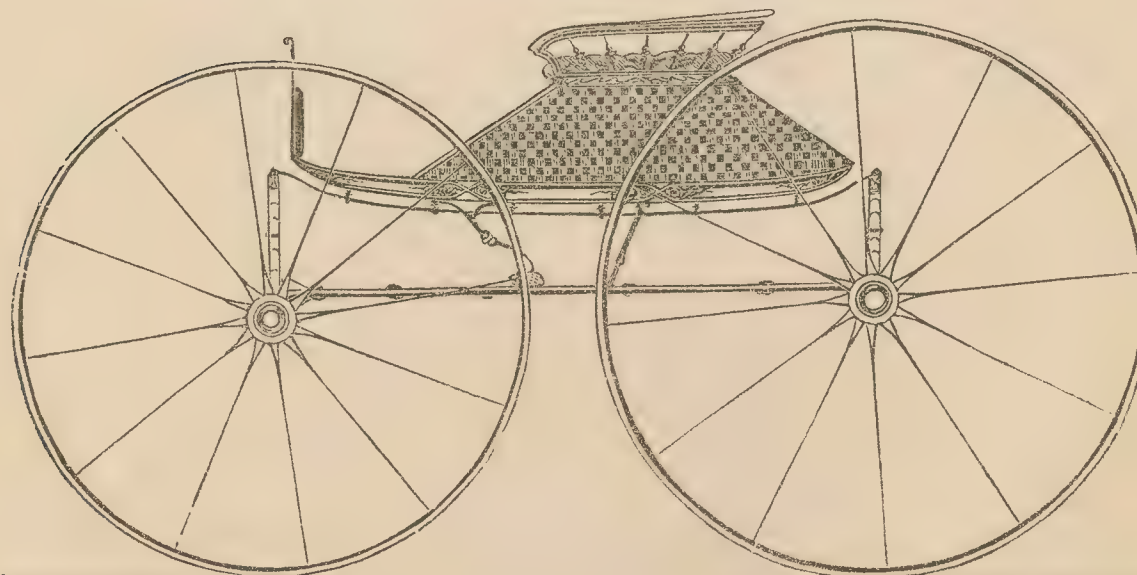
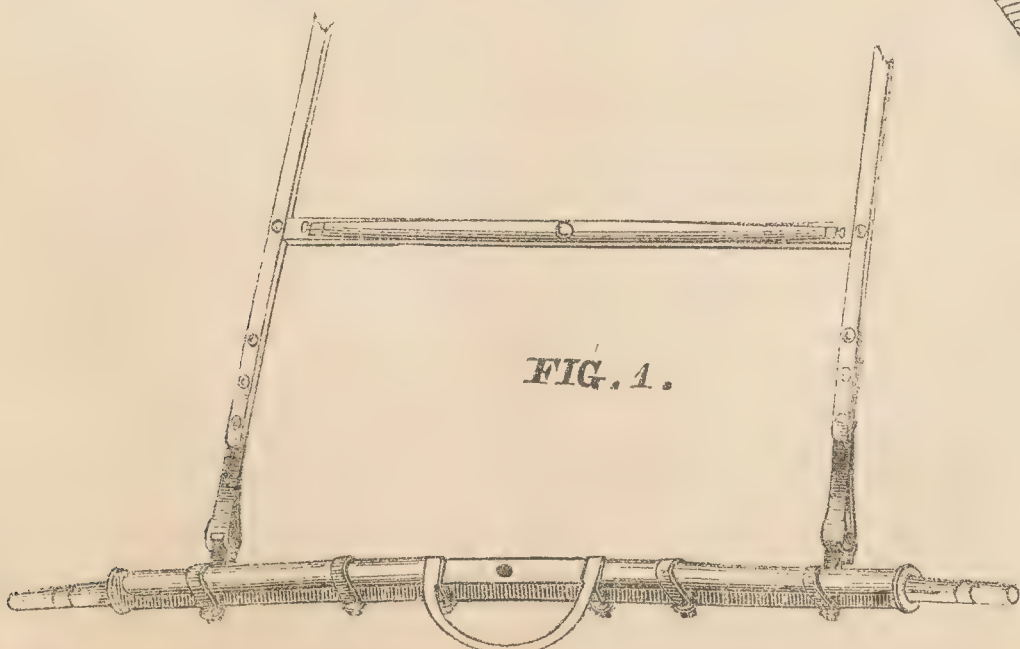
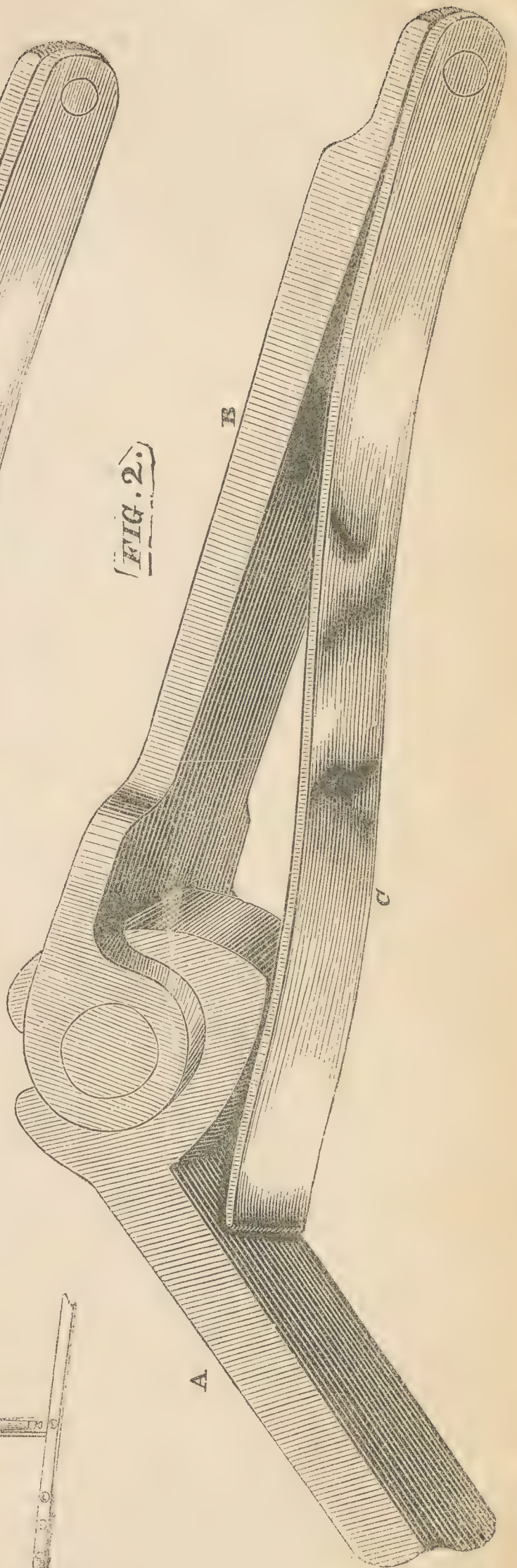
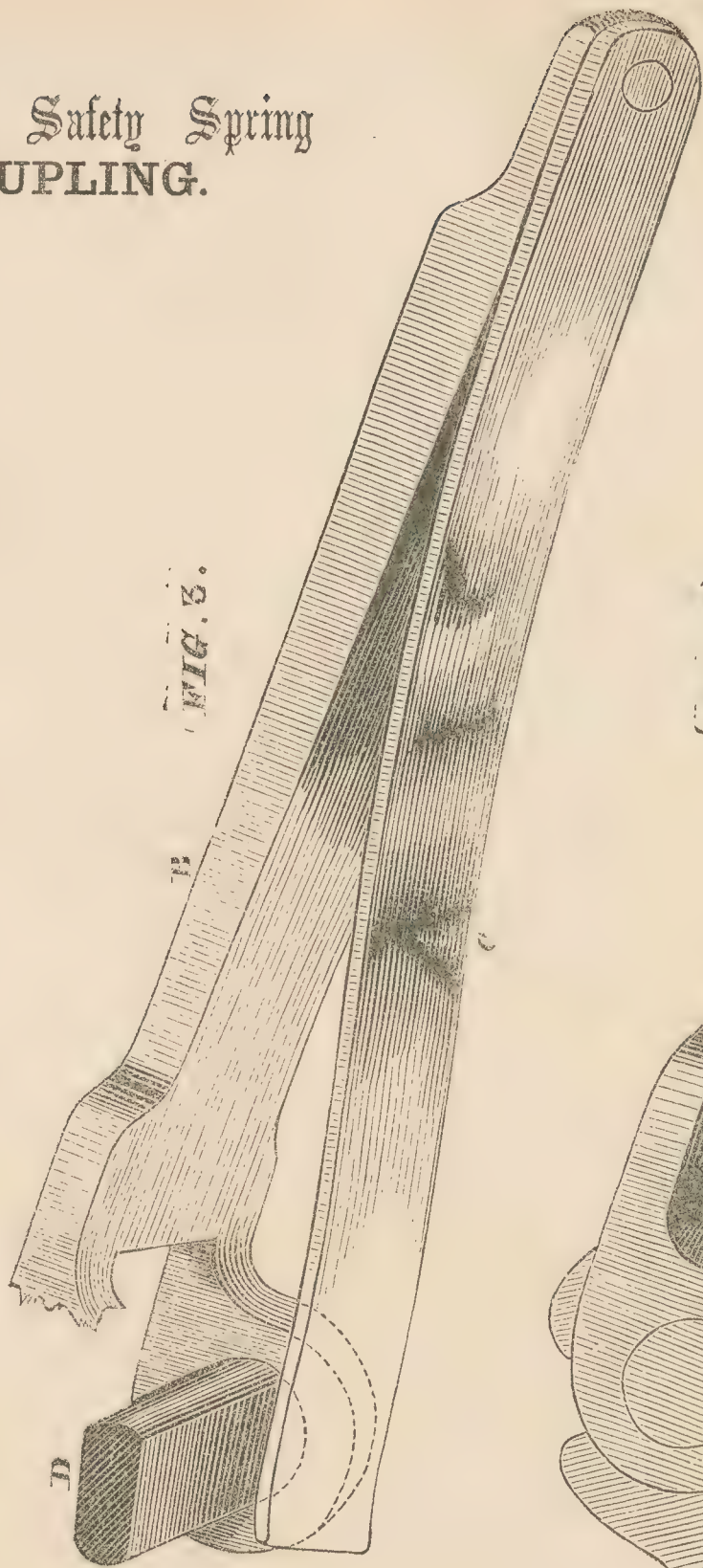
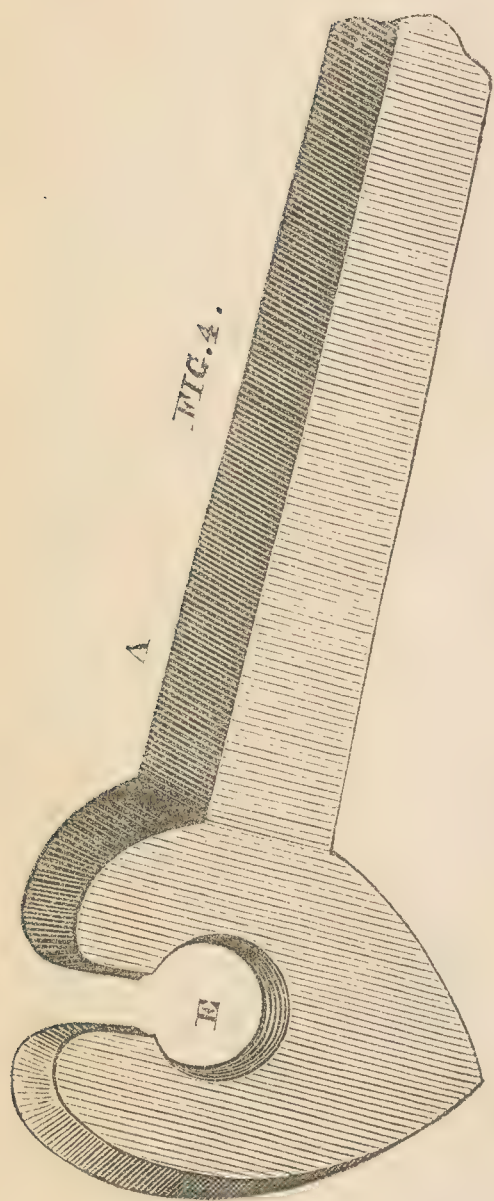


Fig. 36.—New Haven Buggy.

Shoenberger's Patent Safety Spring
SHAFT COUPLING.

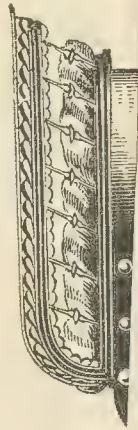


IMPROVED PLEASURE

WAGON

Patented January 29th, 1856.

WAGON



WILKINSON'S IMPROVED PLEASURE WAGON.

Patented January 29th, 1856.

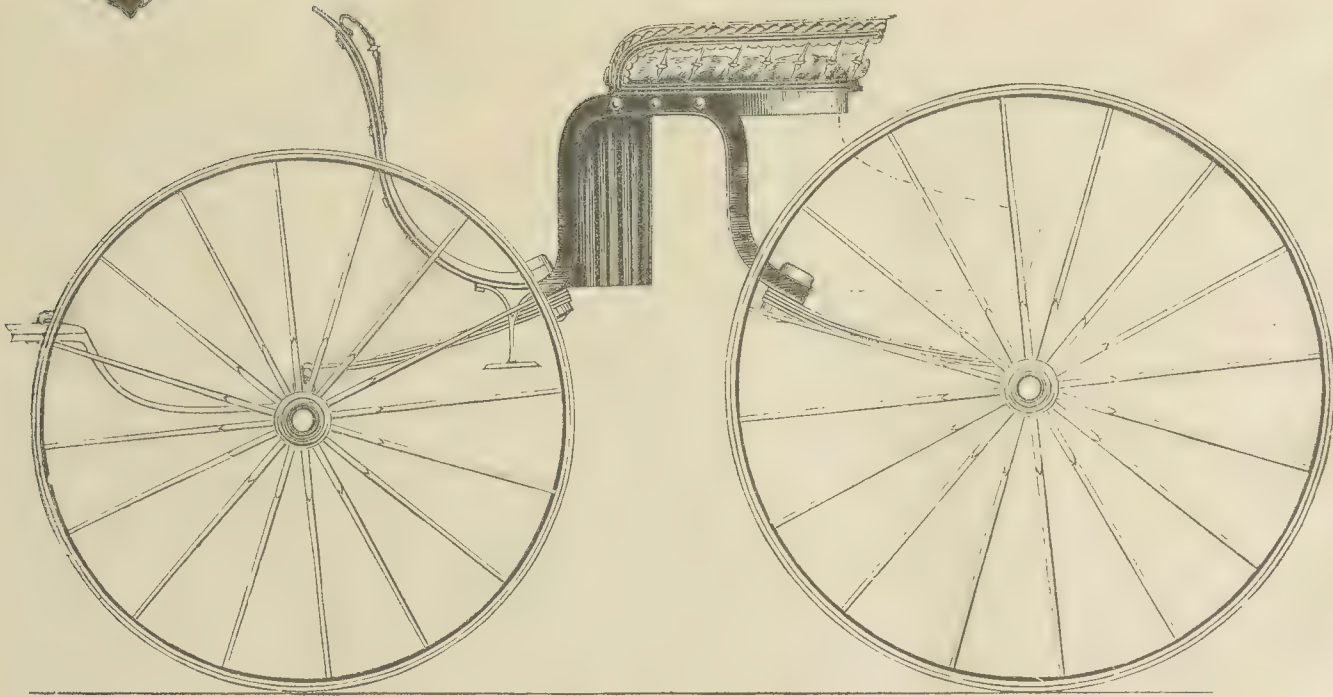


Fig. 1.

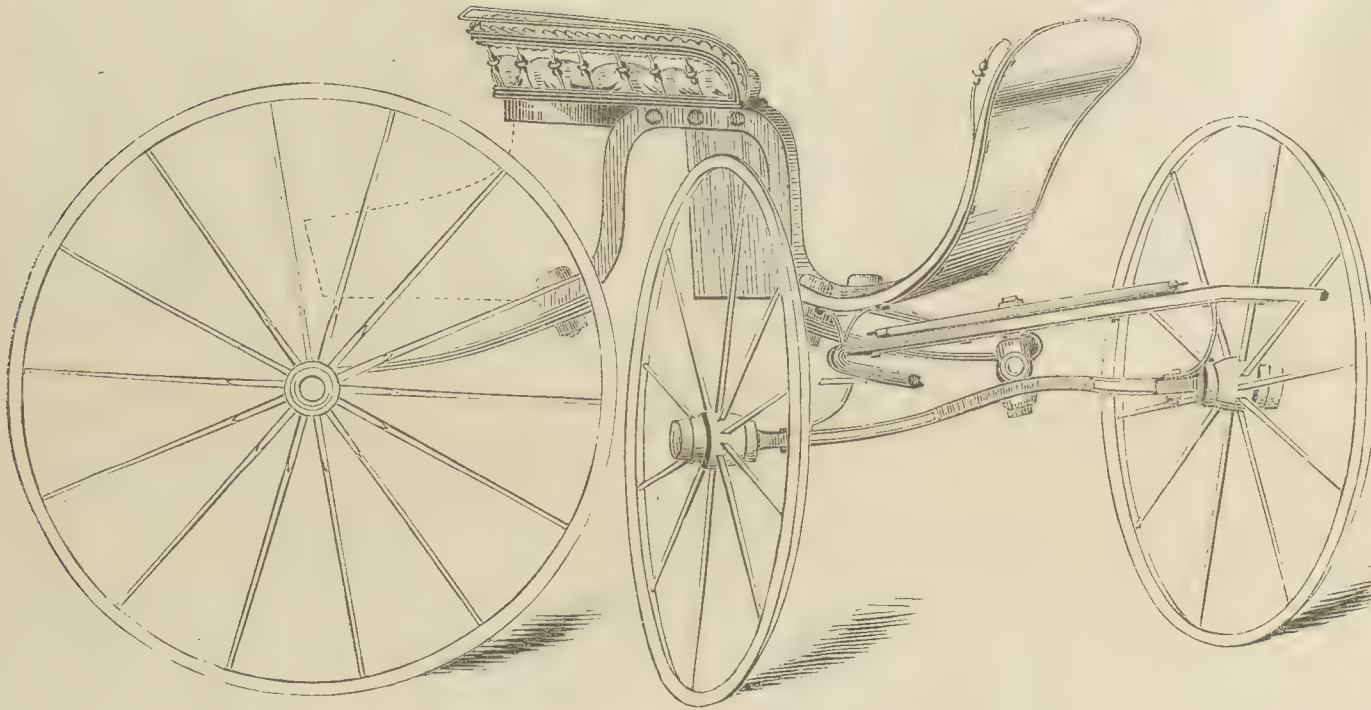
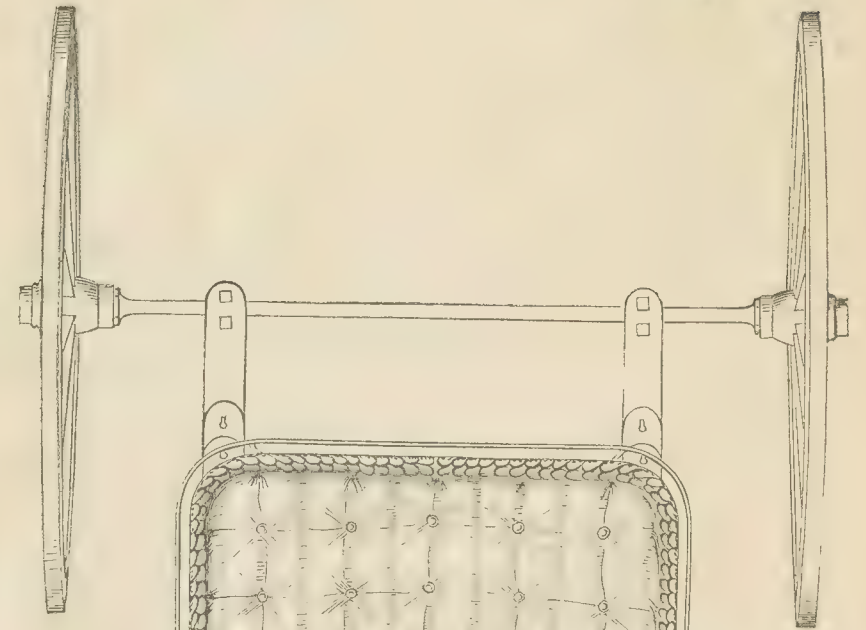


Fig. 3.

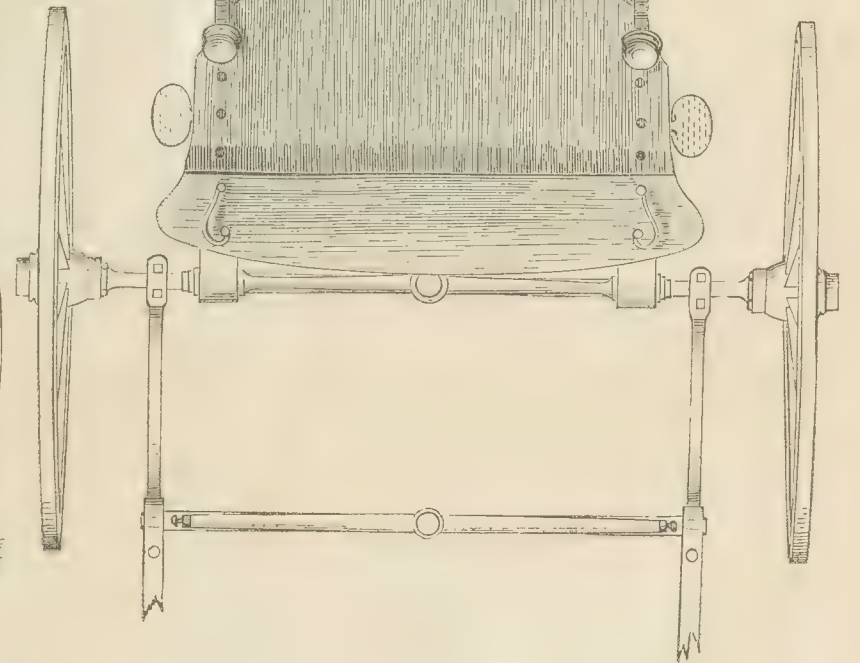


Fig. 4.

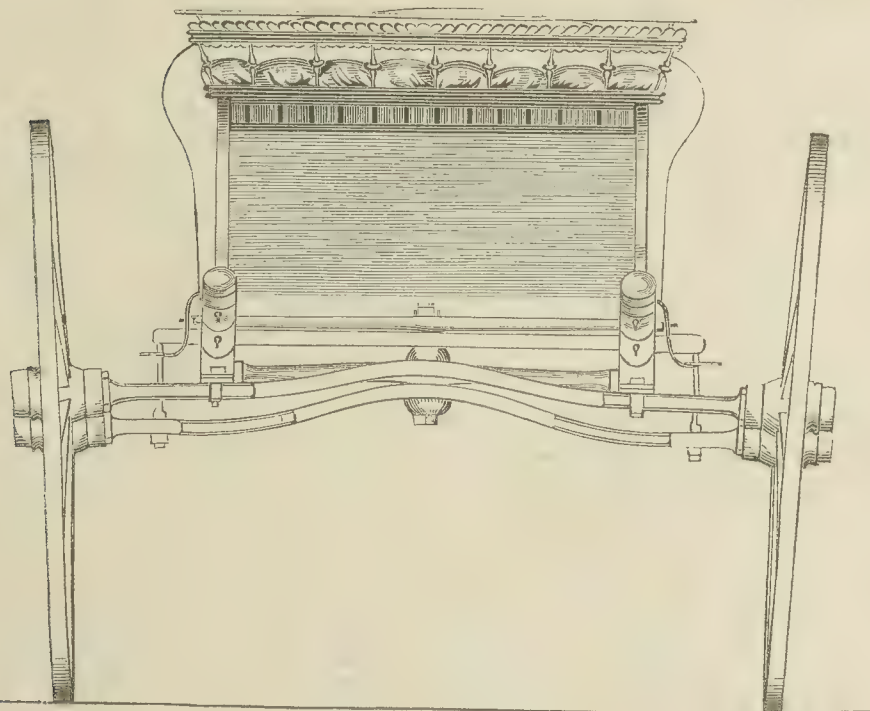


Fig. 5.

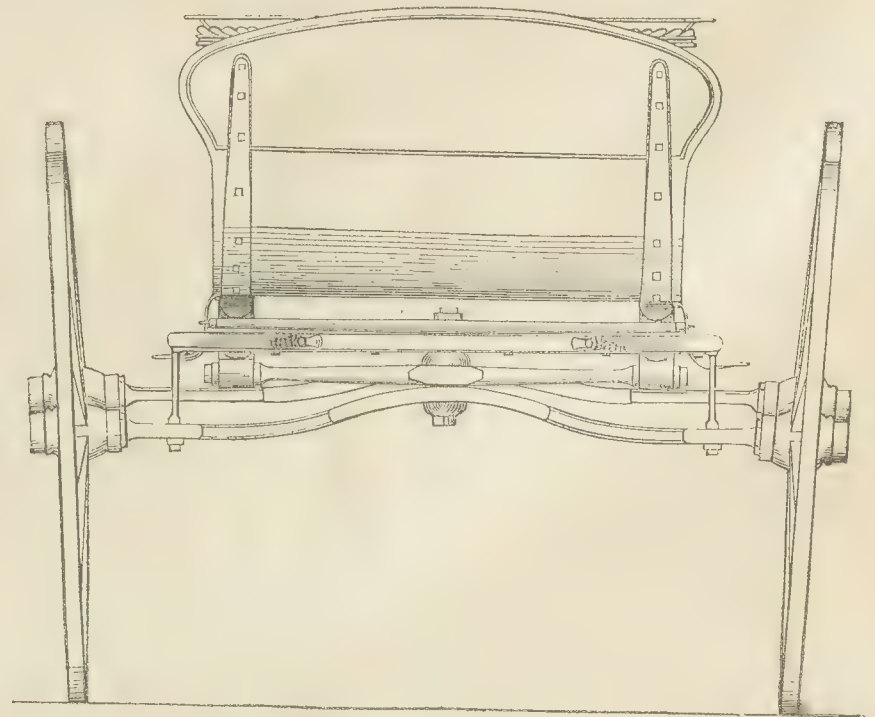


Fig. 6.



Volume 2.--Number 6.]

June, 1856.

[C. W. Saladee, Editor and Proprietor.

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Fashions for June.

FIG. 34.—CAROLINA BUGGY.

The drawing as shown in this Fig., was sent us by one of our subscribers, Mr. Fred. Cott, of Columbia, S. C., and for the want of a name we shall call it the South Carolina Buggy, supposing that as a matter of course, it is adapted to the taste of pleasure seekers in that section of the country. The explanation that we have with it, is, that it is a box body, sides made of $\frac{1}{2}$ in. white wood, mouldings nailed on, made open where the stick work shows, with the deck panelled over; solid seat with mouldings nailed on, to show an oval in the centre, and upon close examination it will be seen that the outer edge of the moulding extends to the extreme ends, and

sides of the seat, thus forming a perfectly plain surface from the oval outwards.

FIG. 35.—BOSTON PHÆTON.

This Fig. represents a drawing sent us by one of our traveling agents while in Boston, who describes it as being not only a very fashionable carriage, but a very desirable one, having a high back, and of a light, airy appearance. The seat is made open and separate from the body. The pump handle or break is formed by a continuation of the rocker, and finished as shown, answering the purpose of a back loop.

For Saladee's Magazine.

FIG. 36.—NEW HAVEN BUGGY.

MR. SALADEE—*Dear Sir* :—Enclosed I send you a very fashionable light buggy, now being very extensively built in this the City of Elms, and I think it here a little the best of our modern styles.

You will perceive that the rail to seat has a peculiar though handsome turn in front; first introduced in Philadelphia. The boot is made of wood, and painted as represented in the drawing; and the body loops instead of being bedded directly to the body, are placed from 1 to $1\frac{1}{2}$ inches therefrom, with a plated collar, from eight to ten inches apart, with a bolt passing directly through each of them, attaching it to the body, giving a handsome, light, and airy appearance to the carriage.

Yours, respectfully,
J. E. M.

SHOENBERGER'S PATENT CARRIAGE SHAFT COUPLING.

The Shaft Coupling illustrated on the second plate in this No., is the very ingenious invention of Mr. E. F. Shoenberger, of Marietta, Pa., and for which he obtained letters Patent, Feb. 19 1856.

Among the many improvements that have been introduced in the carriage department for the past two years, we do not know of any that we would be willing to indorse more heartily than the one above referred to. There are hundreds of "idlers" almost constantly engaged in making what they call improvements, with no

other motive power than *speculation*, and without even once pausing to inquire whether the part or parts they propose to improve in any machine *has ever proven defective*, or whether the actual *every day use* of such machine *has suggested* the propriety or need of the contemplated improvement. But in place of this we find that the leading spirit manifested by a majority of our modern inventors soars no higher than is necessary to obtain a satisfactory answer to that world-renowned inquiry, "will it pay?" And the next thing in the regular course of his studies seems to be, "In what way can I best *deceive* and *gull* the public?" The invention is completed, a patent is obtained, and the lucky man rushes out into the world with his new improvement, expecting therewith to astonish the nations. But, alas! for many of them, when the penetrating eye of the *practical* man is brought to inspect its utility, it will be found that the improvement consists (in many cases,) in nothing more than a modification or *alteration* from *good* to *bad*, or if you please, from the right principle to the wrong. Who has not seen hundred of improvements (so called) which when brought to the test, proved far inferior to that principle which it proposed to amend?

We have many times before this advocated the doctrine that where defects are not visible, nor do not become apparent from *actual use* of any instrument or machine, *improvement* is uncalled for. But how would this theory work if applied to the improvement first above mentioned? Let us see. First, what person who has ever used a carriage to any considerable extent has not been annoyed with the constant fear of the "connection bolt" to the shafts working out and thereby disconnect the shaft from the axle? Again,—what individual has not been tormented by the perpetual rattling so common in the ordinary shaft coupling? and furthermore, we should like to see the *gent* who has *not* had his patience exhausted when in the act of changing the pole and shafts by the connecting bolt, while attempting to remove and replace it, saying nothing of the dirty work that accompanies such a task. Then it would seem that we have discovered *three* imperfections in the ordinary shaft coupling, viz: 1st—the danger of losing the burr and consequently the connecting bolt. 2d—the annoyance of rattling, and 3d—the inconvenience attending the changing of the pole and shafts. Now then, the question to be decided is, "Will Shoenberger's Improvement obviate all these difficulties and at the same time be as durable as the *old* coupling?" We answer, *it will*; and if there are others (as doubtless there are) who think different, we should be most happy to publish their objections. We are informed, that Mr. S. has made an arrangement in Pittsburgh, to have the said shaft coupling manufactured. The following is a description of the engraving:

Fig. 1 shows the coupling with the shafts attached to the axle-tree. Fig. 2 shows the coupling full size, detached. A represents that portion of the jack which is attached to clip. B shows the heel of shaft iron with spring C attached; when the horse is attached the spring bears sufficiently heavy on the lower point of the jack, preventing all rattling. Fig's 3 and 4 represent fig. 2 detached, showing the connection of the two. It will be seen from the shape of pin on bar D, that the shafts must be raised to a vertical position and dropped into the box C, when brought down to a working position, forms a secure joint or lock, requiring but an instant to attach or detach from the carriage.

WINAN'S PATENT PLEASURE WAGON—PATENTED
JANUARY 29, 1856.

Since the issuing of this patent there has been quite an inquiry

made among a portion of our readers as to what the "form of construction" can be like in this new improvement, as it was reported to be more simple than the ordinary vehicle—also, that is, and ever will be, void of all manner of rattling.

On our late visit to Baltimore, we made the acquaintance of the Patentee, and had the opportunity of seeing his carriage in practical shape, and likewise that of *trying it*, the result of which has fully satisfied us that it is all and even more than the inventor claims for it. We were therefore induced to make the necessary sketches of it, and also obtain a copy of the specifications attached to the letters patent, and present the same to our readers through the Magazine.

As to the disposition of this patent, we are not informed what course will be adopted. We presume, however, that one of two things will be done, viz: a factory will be erected to manufacture the springs and all the important appurtenances belonging thereto, and furnish the coach-makers therewith, or an extensive establishment with the best facilities which can be had to manufacture the buggies complete, which will be sold to the trade wholesale and retail, and at such prices that the coach-makers and dealers can buy to sell again with a good profit. But in consequence of a very extensive contract, Mr. Winan's has effected with the Government of Russia, in the Railroad business, and other weighty matters at home, he is not as yet decided upon the manner in which he will bring his patent carriage before the public. The following is a copy of the specification above referred to:

"Know all men, by these presents, that I, Thomas Winans, have invented a new and useful improvement in the construction of the class of wagons known as buggy wagons.

"The objects I have in view are facility of turning short round, and simplicity of construction, while the ease of motion, size of wheels, and weight of the ordinary buggy are preserved, the seat being neither objectionably high nor removed materially from what experience has shown to be its best position in relation to the axles.

"The ordinary buggy wagon is a light carriage on four wheels with a seat for one or two persons. The springs commonly used are the ordinary elliptic springs, though a buggy has been patented with *singlesprings* lengthwise of the vehicle, extending from the hind axle to the bolster over the front one. In the common buggy, the axles are kept together by a perch and hounds; in the other, the side springs supply the place of the perch and hounds. But it is difficult to turn either of these buggies short round, the forward wheels striking against the body in the one case, and the springs or body in the other. Various other plans for turning short round have been patented, all of which are more or less objectionable, however, and none of them turn as short as is desirable and useful. For instance, the hind axle has been made to swivel in the opposite direction from the front one in the act of turning, by connecting the opposite sides of the front and back axles with connecting rods running diagonally from one to the other crossing in the centre; the back axle having a swiveling point as the front one. In another patent, the front wheels swivel on a centre, some distance back of the axle, which allows the axle to make a greater angle before the wheel comes in contact with the body, and consequently enables the wagon to turn shorter round than if the swiveling point were in the centre of the axle as in the ordinary buggy. Both of the above constructions are objectionable, in consequence of the serpentine or side motion which the bodies take when the wheels come in contact with slight obstacles, and even from the motion of shafts caused by the movement of the horse. The above are objections which my improvement overcomes.

"*Turning short round.*—In making short turns, it is necessary that the wheel should not come in contact with any part of the wagon, even though the poles or shafts be turned at right angles with the centre line of the wagon, or still further, so as to prevent the objectionable tendency of such contact to upset the vehicle or derange its parts. I accomplish this desideratum by allowing the wheel to pass under the seat, and dispensing with the perch and hounds. To do this, I place the seat upon two iron bars parallel to

each other and running lengthwise of the wagon, bent somewhat in the shape of the letter U inverted, with the extremities bent outwards. To these I fasten the thick ends of what may be called half springs, the opposite or their ends of which are attached to the hind axle, and the bolster over the front axle respectively. The bent bars and springs thus form two side pieces which are united by the seat, the hind axle and front bolster.

"The construction of these side pieces is shown in the margin, where it is seen that each of the springs is like one-half of the upper member of the common elliptic spring with the long leaves placed at the bottom, and the short ones on top.

"I am enabled to place the seat in the proper position between the axles while the wheel in turning is permitted to pass freely under it by making the front of the seat concave, and the back part of the foot board convex, the riser connecting the seat and foot board being only far enough within the circle described by the wheel, when the buggy turns round, to allow the necessary clearance.

"By this means while the front legs of the inverted U's allow the wheels to pass freely behind them, I am enabled to place the seat in a more desirable position between the axles than could be done without such curving of the seat, and foot board, which is important. While my preferred mode of construction is to place the side pieces above described at or near the outer ends of the seat; yet the ends I have in view may nevertheless be obtained, to a useful extent, by the employment of a single U, of double strength placed in the centre of the seat lengthwise, from the hind end of which an iron bar may extend laterally on either side, and be attached to the half springs, said bar being sufficiently long to allow the hinder half springs to be a sufficient distance apart to give the necessary stability sideways to the seat or body. To the front leg of said U, a single half spring of double strength may be attached, and project forward over the centre of the axle. This would allow of a longer spring and dispense with the necessity of the bolster; or a bar of more or less length may extend laterally from the front end of the U, and be attached to two half springs, the other ends resting on a bolster over the axle, as in the construction first described.

"*Ease of Motion.*—In perfecting my improvement it was a matter of much difficulty to attain the desirable ease of motion while the usual distance between the fore and hind axles was preserved, and a number of buggy wagons were built by me in succession before I obtained a satisfactory result. Finally I overcome the difficulty by making the steel plates comprising such spring thinner than they had ever been made in the common buggy wagon, increasing the number of the plates, or their width, to give the requisite security against breakage or permanent set. Thus instead of using plates $\frac{1}{4}$ in. thick, which is about the usual thickness used in buggy wagons, I used plates but $\frac{1}{8}$ in. in thickness. The elasticity of steel being inversely as the square of the thickness. I thus obtained more than double the elasticity per equal lengths, without a permanent set. This afforded me the usual elasticity with a single spring, which had necessarily to be short, to prevent the axles from being spread unusually apart. In the ordinary buggy wagon the use of a compound or elliptic spring has been found necessary to produce the desirable amount of elasticity or ease of motion.

"*Simplicity of Construction.*—This is the result of the use of the side pieces composed of the bent bars and springs heretofore described, enabling me to dispense with the perch and hounds the tray or common body for supporting the seat, and the usual springs, and also with a number of parts and bolts and fastenings due to the use of the ordinary perch, hounds, and springs.

"What I claim as new, and desire to secure by Letters Patent in the improvements above described, is the combination of bent bars and springs arranged substantially as herein described to connect the fore and hind axles, support the seat with both the requisite firmness and elasticity, and to permit the front wheels to pass under the seat in turning short round.

"The buggy herein described in the form preferred by me is exhibited in the accompanying drawings which are to be taken as a part of this specification."

JNO. H. B. LATROBE, }
JAS. B. WRIGHT, } Witnesses.

THOMAS WINANS.

COMMUNICATIONS.

For the Coach-Makers' Magazine.

THE IDEAL, INCEPTIVE, AND PROGRESSIVE HISTORY OF COACH-MAKING.

PART THIRD.—THE CHARIOT OF HISTORY.

*Ad altos
Deducit juvenem, Vulcania munera, currus
Aureus, axis, temo aureus, aurea summa
Curvatura rotæ; radiourum argenteus ordo.*

[OVID'S MET. LIB. 2.—105.—108.]

[He leads the youth to the lofty chariot, the gift of Vulcan. The axletree was of gold, the poles were of gold; the circumference of the exterior of the wheel was of gold; the range of the spokes was of silver.—Ass. Ed.'s translation.]

In the last article of speculations on this subject, it was pre-supposed that the application of the wheel in some form to the sledge, was in practical and common use previous to the general destruction of mankind by the universal deluge, and in the absence of any positive evidence to the contrary, we are justified in supposing, that during the period of sixteen hundred and fifty years in which man had been privileged to experiment, that he must have made considerable progress in improving his embryo carriage; and that by improvement upon improvement it had come to be a strong and useful assistant to his labors in cultivating this sin-cursed earth, and particularly so in Noah's day, else, how could he have brought together the "lignis lævignis" of the vulgate, and other material of which the God designed and ponderous ark was constructed; and which according to the most generally received opinion, was not less than five hundred and forty-five feet long, and proportionally wide and deep enough to enable it to hold and carry more than eighty-one tons!

Could there now be found a minutely detailed history of the progressive and successive improvements made in the form and strength of our ideal sledge-wagon, for the several centuries preceding and after the flood, we should have one of the most interesting narratives of which the world could boast,—especially interesting to that portion of it engaged in the manufacture of carriages—but of which, unluckily for us, we must forever remain in ignorance and conjecture previous to A. M. 2289.

The earliest and most authentic account of the chariot which we have—or indeed, of any vehicle constructed and placed upon wheels—we find mentioned in Gen. ch. 41, v. 43, where we are told by the inspired penman, that Pharaoh in order to show to the people his pleasure in honoring his prime minister, Joseph; that "he made him ride in the second chariot which he had," and which we suppose to have been the chariot moving the next to that of the King in the procession, on state occasions. Afterwards we find that Joseph had become the fortunate possessor of a chariot himself, for we read in Gen. 46. 29, that he "made ready his chariot and went up to meet Israel his father, to Goshen." From these two notices of the chariot, we may reasonably conclude, that the arts were in an advanced state of perfection in Egypt, at this period, and as Dr. Clark observed, "when we find wagons used to transport goods from place to place, we need not wonder that these suggested the idea of forming chariots for carrying persons, and especially those of high rank and authority.. Necessity produces arts, and arts and sciences produce not only an increase of the conveniences, but also of the refinements and luxuries of life."

From the 14th chapter of Exodus—or about three hundred years after the oldest notice we have—we learn that after the Israelites had taken their departure from Egypt, that the king "took his chariot" and "six hundred chosen chariots" and "all the chariots of Egypt" and "all the horses" which Pharaoh had, and went in hot pursuit of his fugitive subjects, and as these powerful pursuers were following hard after them through the Red Sea, the Lord "took off their chariot wheels, and made them go heavily." These "six hundred" and the most of the other chariots named, doubtless, were war-chariots and according to the most authentic accounts we have of them, in classical authors, were generally drawn by two or four horses, and carried three persons; one was the charioteer, (essedarius) whose business it was to drive the horses, but he seldom fought, although he was provided with side arms for his personal defense in case of necessity; the second chiefly defended the driver; and the third alone properly did the fighting.

This whole account goes to confirm us in the opinion, that Egypt at this early period of the world's history, must have been very rich and powerful in her means for defense against her enemies, or for aggression upon her neighboring nations, and besides furnishes us with indubitable evidence, that our sledge-wagon had become not the luxury of kings and nobles only, but at once convinces our understanding, that our trade was at the time progressive in its character, but in consequence of the want of an authentic detailed narrative we are left very much to conjecture as to its perfection.

From this period until we come down to the classic age of the poet Homer, about 950 years before Christ, or A. M. 3054, we are without any history to enlighten us in our subject; but in the elaborate and ingenious writings of that celebrated author, we have a remarkably minute and beautiful description of the chariot of the goddess Juno, in the fifth book of the Iliad, (v. 720,) of which the following is a strictly literal translation:—"Juno, on her part, venerable goddess, daughter of mighty Saturn, quickly moving, harnessed her gold-comparisond steeds; but Hebe, (the daughter of Jupiter and Juno, and afterwards the wife of the world-renowned Hercules) speedily applied to the chariot, to the iron axletree on both sides, the curved wheels, golden with eight spokes. Of these, indeed, the fellow is of gold, imperishable; but above (are) brazen tires fastened on them, wonderful to be seen; but the circular naves on both sides are of silver; and the body (literally seat) was stretched on with gold and silver thongs (there was a double circular rim;) from this projected a silver pole; at its extremity she bound the golden, beauteous yoke, and to it attached the beautiful golden collars. But Juno, longing for conquest and battle, led the swift-

footed steeds under the yoke."* In this passage we have left to us a detailed as well as an intelligent exhibition of the state of improvement to which the art of chariot making had reached in that age of the world; and although the silver naves, and golden spokes and felloes existed only in the brain of the poet, still his composition must have been suggested by the mechanical construction of real chariots in common use around him, no doubt made of less costly material than those he mentions. Observe with what precision and technicality he names every portion of the wheel, body, &c.; and the axle too—that was made of iron!

It is very evident from another passage of our author that wooden axles were still in common use, for in this same work we find it stated that Minerva having ascended the chariot beside noble Diomedes, the beechen axle groaned (bent) under the weight, "for it bore a dreadful goddess and a very brave hero," nor is this very strange, for many even now, contend that a wagon will run the easier for having a wooden axletree; but as the settlement of that question here, is no part of our present business, we shall leave the matter in the hands of our readers for their decision. We would remark *en passant* that the chariot appears to have formerly been a favorite object with the poets, and but for this circumstance our knowledge—little as it is—would have been very much abridged. In the *Illiad* we have mentioned Agememnon's "brass variegated chariot," Menelaus' "well made chariot," "Minerva's shining chariot," Jove's "beauteous wheeled chariot," Ulysses' "well wrought chariot seat," the "well formed chariot seat," the "well joined chariot seat," the well polished chariot, with various other details, all of them suggestive and instructive. Homer also mentions the well glued car of Achilles, and in the 24th book of the *Illiad* we find at the funeral rites in honor of Hector the "well-wheeled mule drawn chariot," and that they yoked both oxen and mules *beneath* the wagons.

The iron axle before mentioned speaks volumes in favor of the opinion that the arts were in a high state of perfection at the time of which we are writing, and it is clear to the mind that all these minutely detailed parts of the chariot had been invented and put in common use long prior to the poet's time, otherwise he would not have been able to give us such an array of technical names and details in his descriptions. If we examine the figures of the wheel bequeathed to us by the sculptors and painters of antiquity, there is one thing which presents itself very forcibly to the mind, and that is the fact, that great pains have evidently been taken in trying to find out the best mode of constructing wheels applicable to carriages, for we have seen them illustrated in a variety of forms of the period of time before and since the Oscean bard penned his immortal poem, and yet after all it is still in our own time a disputed question as to which is the best form; whether short or long felloes are the most serviceable; whether wood or metal is preferable for the hubs, or wood or iron for the axles—in one word there are as many opinions on these subjects, as there are individuals. Of this truth we have the fullest evidence in our advertising columns and the various opinions put forth by our numerous correspondents in these pages.

Hesiod, another Grecian poet and cotemporary with Homer has given us some account of the chariot as delineated on the shield of Hercules; the husband of her who led out the golden bitted horses of her mother; where he mentions, that

"Some on the smooth-wheeled car
A virgin bride conducted," &c.

and further on in his continued description of this shield,—the reputed handy work of our ancient and ingenious fellow craftsman, Mulciber or Vulcan as he is more commonly called, who by the general consent of all ancient authors seems to have been wheelwright in general and blacksmith in particular to a long catalogue of gods, goddesses and heroes of early times, and who, no doubt, enjoyed an exclusive and extensive patronage some thousands years ago—we find him depicting Cygnus and Mars as,

"Both bright in arms,
Bright as the sheen of burning flame, they stood
On their high chariot, and the horses fleet
Trampled the ground with rending hoofs; around
In parted circle smoked the cloudy dust
Up-dash'd beneath the trampling hoofs and cars
Of complicated frame. The well framed cars
Rattled aloud; loud clashed the wheels; while rapt
In their full speed the horses flew."

Again he tells us in the work from which the above is translated by Elton, that

"High o'er the well compacted chariot hung
The charioteers; the rapid horses loosed
At their full stretch and shook the floating reins.
Rebounding from the ground, with many a shock,
Flew clattering the firm cars, and creaked aloud
The naves of the round wheels."

This author also describes the "burnished chariot," the "flying car," from which, and the accounts of other historians we conclude that the chariot or car was not only highly ornamented with plate and other trimmings, but that then as now there must have existed a class of persons which we are accustomed to denominate fast men, and gods even!

Stesichorus a subsequent Grecian poet (A. C. 632) in the account of the destruction of Troy, mentions the "regal chariot" as forming a prominent feature in the procession in celebration of that event. This poet brings us down two hundred and eighteen years later than Homer or Hesiod's age, and from all these accounts we are led to the following conclusions:—First;—that our sledge-wagon had now become the perfectly-formed well-designed car or chariot, and was used for war purposes and the more peaceful pursuits of life, including the chariot race of which we shall treat more particularly in our next article. Secondly; that they were used on funeral occasions, and in state ceremonials. Thirdly; that not only chariots, but that wagons and carts had become the common means of transporting passengers and burthens from place to place, then, as now; Fourthly,

*In order to gratify our curious readers we will here subjoin another translation of the same passage, not quite so literal as the above, to illustrate the difference of rendering in different translations: "The awful Juno led out the golden-bitted horses, Hebe fitted the curved wheels on the iron-axles of the swift chariot. The wheels had each eight brazen spokes, the nave was truly circular and of silver, the felloes were of gold, secured all around by brazen tire, admirable to the sight! The seat was gold, hung by silver cords. The beam was of silver, at the end of which was fastened the golden yoke, and the golden collar."

we infer that they were in common every day use from the fact that vehicles of some description are constantly mentioned by the most celebrated writers of the time, and lastly, that our craft can boast of its antiquarian origin with consistency. E. M. S.

For Saladee's Magazine.

STRATTON'S IMPROVED AXLE BOX, COMBINED WITH LONG BOLTS—PATENTED APRIL 1, 1856.

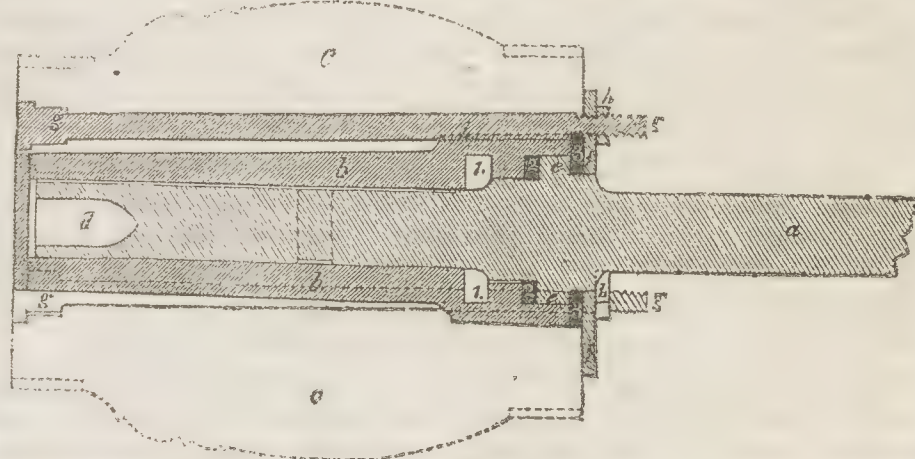


Fig. 1.

Fig. 1 is a sectional elevation of a mail axle and box, fitted in a light carriage hub, reduced size; long bolts are shown as passing through the hub with nuts against a flange for securing the hub and box from the axle.

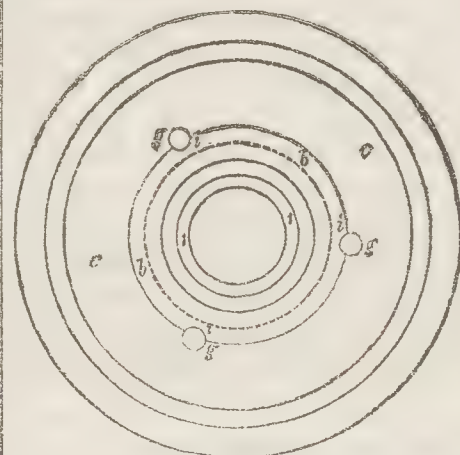


Fig. 2.

Fig. 2 is an end view of the hub with the flange, or moon plate, and axle removed, showing the end of the box and the manner of constructing it, with plain longitudinal key seats adapted to, and combined with long bolts (as keys) which securely fasten the box in the hub without wedges, thus preserving the maximum strength of the material of which the hub is composed.

Mail axles and boxes for carriages have long been favorably

known. The use of long bolts passing through the hub to a flange behind a collar in the axle for fastening carriage wheels upon mail axles has justly been regarded as safe and secure. As heretofore used, however, the long bolts have passed through the hub entirely outside of and disconnected from the box, consequently the bolts passed through the spokes near the periphery of the hub, materially weakening both hubs and spokes except where large hubs were used, hence mail axles with long bolts were unsuited to small hubs. For this purpose short bolts with heads adapted to and fitted in grooves or lugs on the large end of mail axle boxes have been used, the declared object being to dispense with the long bolt; others again have used a cylindrical screw on the inside of the collar, &c., but the most of these contrivances having been made more for the purpose of increasing the inventor's sales than for practical purposes, have in the end proved failures. The axle and box illustrated in this article was invented to supply the place of all those worthless ones, by a practical Coach-maker, to be used in his own manufactory, but finding it being appropriated by another party, he considered it time for him to secure it by Letters Patent.

The object of this invention is to group the long bolts close to the small portion of the mail axle bolt, and by thus making them compact to pass them through the hub and spokes near the centre, or at the roots of the spokes, and thereby preserving the maximum strength of the hub as well as spokes, thus being enabled to overcome all the difficulties heretofore experienced in using small hubs with mail axles, and boxes, and at the same time to retain all the advantages due to their use with the most simple and safe means of fastening the wheels upon their axles and the boxes in their hubs.

In order that the nature of this invention may be fully understood, the reader is referred to the accompanying engravings and to the letters of reference marked therein as showing it to consist in the construction of plain, longitudinal channels *i*, forming key seats for the long bolts *g*, as keys which are shown in both figures in combination, by which construction and combination the bolts *g* are

grouped close to the box *b* and thus they are made compact and suited to small hubs for light carriages. The interior arrangement of the box, and the axle, with the means for holding and retaining oil for lubrication, and also the flange for securing the wheel upon the axle are such as are in common use. It will therefore be understood that *d* represents an oil cup in the end of the axle *a*.—*i* also represents an oil recess in the box *b*.—2 and 3 are leather washers, one upon each side of the collar *c* upon the axle *a*.—*f* represents a flange through which the bolts *g* pass, which flange *f* is screwed firmly against the end of the hub *c* by the nuts *h*. Fig. 1 being in section, the longitudinal channel, *i* with the long bolt *g* passing through it, is seen in dotted lines on the upper side of the box *b* in the hub *c* without wedges driven in the end of the hub, such wedges being the only means heretofore known for fastening axle boxes in carriage hubs. Fig. 2 also shows that the box *b* is fitted in the hub *c* simply by boring out the hub to the proper size, and also that the longitudinal channels *i* mark the place for the holes through the hub *c* for the bolts *g*, and that they serve as guides for the bit in boring them, so that the labor as well as the cost of fitting in the box is materially cheapened, while at the same time all injury to the hub by cutting to fit, or splitting to wedge the box as has been done heretofore in all cases, in fastening the box in the hub, is entirely avoided, and the full strength of the hub is preserved. This is the only mail patent axle which can be used, or found suitable for hubs as small as the present fashion requires, and must necessarily come into general use for the finer description of carriages.

The public are respectfully informed that the law of the United States (act 1842, section 6) says that "Patentees or their assignees are required to affix the date of the patent on each article vended or offered, under a penalty of not less than one hundred dollars." Also, that "stamping or affixing the name of any patentee on any article without authority to do so, or affixing the word 'patent' or 'letters patent' or the stamp, mark or device of any patentee on any unpatented article, is forbidden under a like penalty."—(Act of 1842, section 5.) Purchasers will therefore see that all axles of this patent are marked "E. M. Stratton, Patented April 1, 1856." All others are base infringements, and will be visited with the penalty the law inflicts.

Persons wishing to purchase Shop, County or State rights for manufacturing this axle under my patent will please address E. M. Stratton, 106 Elizabeth-street New York.

E. M. S.

ON TRIMMING.

For Saladee's Magazine.

FRIEND SALADEE:—I send this unaccompanied by any drafts, as I consider a single complicate sketch of a whole job dashed off in an ornamental style, and presenting a dozen finished parts at a glance, of very little consequence, save to ornament the columns of the Magazine.

In the first place, styles universally known, need no illustration; in the second, new styles, from the peculiar nature of body trimming (in particular) are not only hard to draft, but harder to understand. In my opinion, each style should be dissected and presented in parts, and even these parts should be dissected into two or three different drafts, say one for the body stuff, properly laid off; another for the outside, also laid off and ready for use, and still another of the part when finished; these would benefit the workman; then, perhaps, a draft of the job entire would prove both valuable and interesting to the employer, as guiding his judgment in the selection or rejection of styles. But the latter accompanied only by a voucher for its being a veritable style which has a practical existence, and unaccompanied by any explanations whatever, has no other effect upon that portion which such things are intended to benefit, than so make them scratch their heads in utter amazement and wonder "how that is done."

Allow me to remark, that the range of my acquaintance embraces quite a number of very excellent trimmers in this section and elsewhere, and the universal remark so far as I have heard, is, that they have been none the wiser by the perusal of their allotted department in the Magazine, and the reason was as I have stated, that such things were disposed of in too much of an off hand wholesale manner, without being either dissected or explained. No one

doubts but it is the intention of both the editor of the Magazine and his accomplished draughtsman and co-worker, Bro. McLean, to benefit and enlighten, rather than confound the readers of this department. But all must wait patiently and allow time, experience, and an occasional courteous suggestion to correct the errors of the past, and place things upon a proper footing.

But I do hope that in future, all contributors will remember that anything which needs an explanation is worthy of a full and intelligible one, and that Bro. McLean in particular, (let him draft as he sees fit) will be a little more explicit in making his explanations. I make these remarks not so much for my own benefit, as for the general good of the Magazine and its readers, and I beg that they may be considered as they are intended to be presented, *courteously*, and with a proper regard for the good of all.

I propose to write an occasional article for the columns of the Magazine, but while I shall be happy to see the leading article of our department adorned by the beautiful drawings of Bro. McLean, I shall dispense with drawings myself, at least until such times as I may see the manner in which my suggestions upon the point are disposed of, and content myself with treating upon generalities. By the way, there is a wide field open for cultivation in this direction—styles need to be commented on—the standard of taste needs elevating, and awkward methods and foggy notion need pruning off. We live in a fast age, and need to watch sharp that we are not overtaken in the act of burthening ourselves with a stone for the purpose of balancing the grist.

Carriage trimming is but in its infancy, and notwithstanding we have made great proficiency in inventing rapid methods to accomplish old things, yet in our business but few new and standard styles of cushion work has been invented for the last six years; but we are far from being perfect even in the old. The business needs thorough systematizing, and styles new and old need to pass through the crucible of a critical analysis, that each may receive their due weight and proper place in the estimation of workmen. There is not a thing so simple or a style so old but what it can be treated in a manner that would prove interesting to the mass of those who read this department of the Magazine.

There is one thing to be considered; styles are not the same in any two shops or towns, much less in any two States or sections of the country; hence, what is new in one portion is old in another, and it is natural for one who is fully posted to think every one else is too. Others who gain new light upon particular styles feel delicate about posting it as something new, lest like Rip Van Winkle they should find in too public a manner, that they were behind the times. Thus each is detained by a vague apprehension of some concealed danger from making themselves useful, and giving their brethren the benefit of their experience. Others, I fear, are influenced by selfishness, to keep their little store of knowledge a concealed treasure. But this is all wrong; we need a general understanding, even in matters the most simple, and with the aid of this Magazine the most simple suggestion which might glance upon the workman while plying his trade may in one month's time become generally known and acknowledged as true principle in mechanics, and one that will be used and appreciated in the daily experience of a hundred thousand of his brethren.

The tone of this my first article upon trimming, may prove less interesting than subsequent ones, as is it is merely introductory, and as such must be read and considered. Yet I conceived it necessary to properly prepare the way for a series which shall follow and partake of a more practical cast.

Yours, &c.,

M. G. H.

ANOTHER RESPONSE.

MR. SALADEE—Dear Sir:—In your March No. of the Coach-makers' Magazine, over the signature of "B. G. D.," inquiry is made as to the best time for cutting wagon and carriage timber. I have been a close observer for the last twenty-five years, as to the best time for cutting timber, and am satisfied that all timber for that purpose should be cut when it is fullest of sap, which is in the spring of the year. There are also a few days in the month of August in which it is good to cut timber. (The bark will slip easy when it should be cut in all cases.) Timber at this season of the year is filled with water and other matter (glutinous or saccharine in some kinds of timber.) Timber being filled with water must be softer than at any other season of the year; as the water dries from

the wood the pores being soft, they close on the impregnated matter which the water contains, and when seasoned is entirely solid. To test this matter satisfactorily, cut from a tree while standing, a chip in the month of February, (which is or was an old established time for cutting) dress out a piece 6 inches long by 1 in. square, lay it by to dry, and in the spring when the same tree is full of sap, take from it another of the same size and length, and let it season also. The result will be that the one cut in February will be larger and lighter than the one cut when full of sap. The latter being softened with the water it contains will shrink to a solid, while the former will dry, leaving the pores open as when cut. Try it. Another great object is to be attained by cutting at this season, which is avoiding the worm. When your timber is ready for putting up to dry, invariably stack or pile in houses or good dry sheds, taking care to take off all the bark and you will not be troubled with worms in your lumber.

If the above should be of any benefit to the craft, then my object is fully attained. If some experienced mechanics of the craft will give their views on this subject, I should be glad to see it.

Respectfully yours,

S. H.

THE MAGAZINE IN EUROPE.

Our Magazine is now being introduced in all the principal cities of Europe, and so far as it has gone, has met with the universal approval of our European brethren. Below is a specimen of letters we are now receiving from the other side of the waters:

SHEFFIELD, Eng., April 29, 1856.

C. W. SALADEE—*Editor Coach-Makers' Magazine*—Sir:—The package of your books by American Express Co., have arrived in due time, and in good order, and have been delivered to the subscribers in our club; all of whom expressed a happy disappointment in what they expected to find your Magazine—not dreaming it was half so extensive, nor gotten up in such an appropriate form, or so neatly executed. Aside from this it gives us pleasure to inform you that its *practical* utility is universally acknowledged, and we think that if you will take the pains to introduce your publication here as extensively as you have done in the United States and Canadas, you will not only reap an abundant harvest for your labors, but you will likewise be instrumental in bringing about a great reform in the *styles* of carriages in this country.

Should you, (as partially promised in your letter of the 8th March,) visit England in the latter part of the summer, you will of course remember your early friends in Sheffield, who you will find ready to give you a warm reception and a hearty welcome. More anon. Believe us, dear sir, your friends and well wishers.

SAUNDERS & RICHARDSON.

EDINBURGH, Scotland, March 21st, 1856.

C. W. SALADEE, ESQ.—*Dear Sir*:—The January and February No.'s of the Coach-Makers' Magazine (1856) have just arrived, and have been inspected by quite a number of the craft in this city, which has resulted in making up a club of names enclosed; &c &c.

Yours, Respectfully,

ADAM J. McLEAR.

NOTICE TO CARRIAGE MAKERS AND OTHERS

Whereas, A. J. Beaumont of New Hope, Pa., has been appointed as my lawful agent to sell patent rights, notice is hereby given that the power of attorney has been revoked for breaking contract. All parties having purchased any right or interest in my Letters Patent, of A. J. Beaumont or his substitutes, or of a Mr. Schenk, will find it to their own interest to forward certified copies of such deeds to the subscriber or Patentee, and have the same recorded at the Patent Office, as A. J. Beaumont is no longer engaged as my lawful Attorney, nor any of his substitutes.

G. L. HAUSKNECHT.

P. S. A number of agents wanted to sell patent rights.

G. L. H.

Greenville, Conn., April 9th, 1856.

Painting Department.

PAINTING BY A PAINTER.—NO. 5.

Various are the plans adopted by Carriage painters to test the quality of varnish, and each can be said to succeed in a measure; for instance, some judge by the taste, others from the color it looks; some take a piece of board and apply two or more coats of the varnish, and expose it to the sun and weather for a length of time. Again there are those who imagine that from the looks of the varnish as it is poured from the can they can judge of its merits.

But as a general rule, the foregoing cannot be taken as a criterion. The plan, however, of exposing a varnished surface to the weather is about the best. A varnish is often sold and used for carriages, made from "resin" instead of "gum copal." There is a certain method to distinguish the one from the other. Good varnish, when a little is taken between the finger and thumb, will draw out in slender threads without making any noise; while varnish that contains resin, will, on being treated in the same manner, soon dry, and a cracking noise will be heard. Besides, resin varnish generally, has a very strong, pungent odor, and of a dark brownish tint.

In applying varnish, there is often a great mistake made in putting it on too heavy; for when a heavy coat is applied, the time usually allowed (three or four days) between it and the succeeding coats is not sufficient to enable it to harden and dry thoroughly, rendering the work thus done very liable to blister when exposed to the sun. A heavy or flowing coat should only be applied as the last or finishing. When English varnish is used as the finishing coat, in my estimation, the heavier the coat the better, for when it is thus applied, it flows beautifully, and the dirt and dust that may settle upon it before dry, do not show as plainly as when put on thin. In all preceding coats, putting on a thin or medium coat is far preferable, for numerous reasons, not the least of which is, that each coat will become thoroughly hard and dry.

There are those who having a stock of patience and time, prefer making their own varnishes; to such I submit the following receipt for a No. 1 article of body varnish, and with the exception of sugar of lead (for which litharge is substituted,) two of the most celebrated of our American manufacturers use it to make their "extra coach body."

Pale gum copal, 8 lbs.; clarified oil, (linseed) 2 galls; pulverized sugar of lead, 4 oz.'s; (and if wanted to dry fast, 6 oz.'s); boil gently for about 4 hours, or until it becomes quite stringy; let it stand until nearly cool, and add 3 galls spirits turpentine; then mix it before quite cold with the following: Gum Anime, 8 lbs.; linseed oil 2 galls; white copers (dry) 3 oz.'s; boil the whole again for about 3 hours; remove from the fire to add 2 gall's of turpentine. After being thoroughly mixed together, strain it into the cans, before quite cool. This varnish will dry in about 6 hours in summer and 8 hours in winter.

The above, I have frequently made, and to those who prefer making their own, would most heartily recommend it. As for the more common varnishes for carriage parts, &c., all will admit that the best and cheapest plan is to purchase it ready made. Where a polish is required, it is necessary to let the body remain for at least a week after the last coat to enable it to become thoroughly hard and dry.

Cleanliness in varnishes is the most important requisite, for the principal end aimed at by the painter is to beautify, and without the strictest cleanliness it is obvious that this end can never be answered.

A good, air tight varnish room is the first on the list of requisites, which should be well lighted, and always kept thoroughly clean. Some painters entertain the absurd idea that keeping the floor of a varnish room damp while varnishing tends to retard the drying, but this is a great mistake. The moisture that arises from the floor never amounts to a sufficient quantity to affect the work, and the advantages of so doing are obvious to every one. The sudden opening of a door in a varnish room when the floor is dry, always sets in motion more or less dust, the fine particles of which will float in the air for an hour afterwards, when, if before commencing to varnish, the work is well dusted off and the floor wet down, the foregoing effect will be entirely obviated.

A good (and indeed the best) plan in varnishing, is to have two cups: one to hold the varnish, and the other to clean the brushes

into. I have always found this mode the best; having a small sized palette knife which I rest over the cleaning cup, and draw the edge of the brush a few times on finishing a side or panel, which removes all superfluous varnish from the brush, and when so cleaned, is ready to draw over the surface for the last or brushing out stroke. The superior looks of the work when finished, will more than compensate for the trouble of the above plan.

The plan of setting away varnish brushes, leaving them standing in a cup of either water or varnish, is objectionable, as it renders them liable to warp and twist the bristles out of shape. They should always be suspended on a wire, which plan prevents the dirt and sediment in the bottom of the cup from adhering to the brushes, besides the advantage of having the bristles hung perfectly straight. Those who adopt the custom of setting away their varnish brushes in water, would (I judge) be at loss for a reason for so doing. One disadvantage of it can be clearly proven, by setting a brush in lukewarm water for half an hour, when, instead of an elastic, springy brush, you will have a flabby swab in its place. Again, there are those who prefer keeping their brushes (varnish) in turpentine, but this custom has the effect of rendering the hair of them brittle and liable to snap off.—But having already taken too much space on this subject, I will postpone further elucidations until next month, when I shall offer some remarks on striping and ornamenting.

B. M'CRACKEN.

TRIMMING DEPARTMENT.

BY G. D. M'LANE, NEW YORK.

Fig. 17.

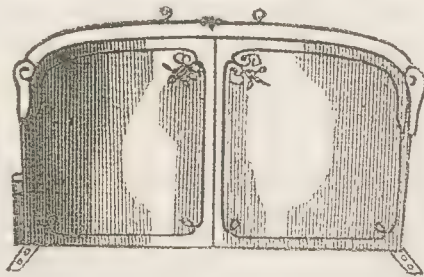
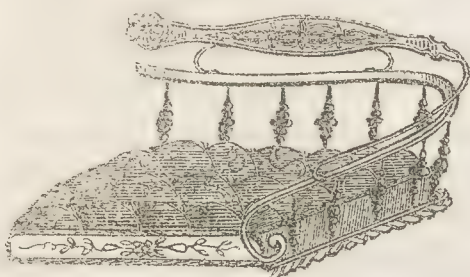
Fig. 17 represents a perspective view of a light trotting buggy, showing the boot, cushions and back. It will be seen that there is no fall in front of the seat. The cushion points are finished with tassels.

Fig 18; round corner seat, showing cushions and fancy trimmed back and the mode of attaching the railing, with design on cushion for fancy stitching.

Fig. 19; railing dash and fancy handle, with figure for stitching.

Fig. 18.

Fig. 19.



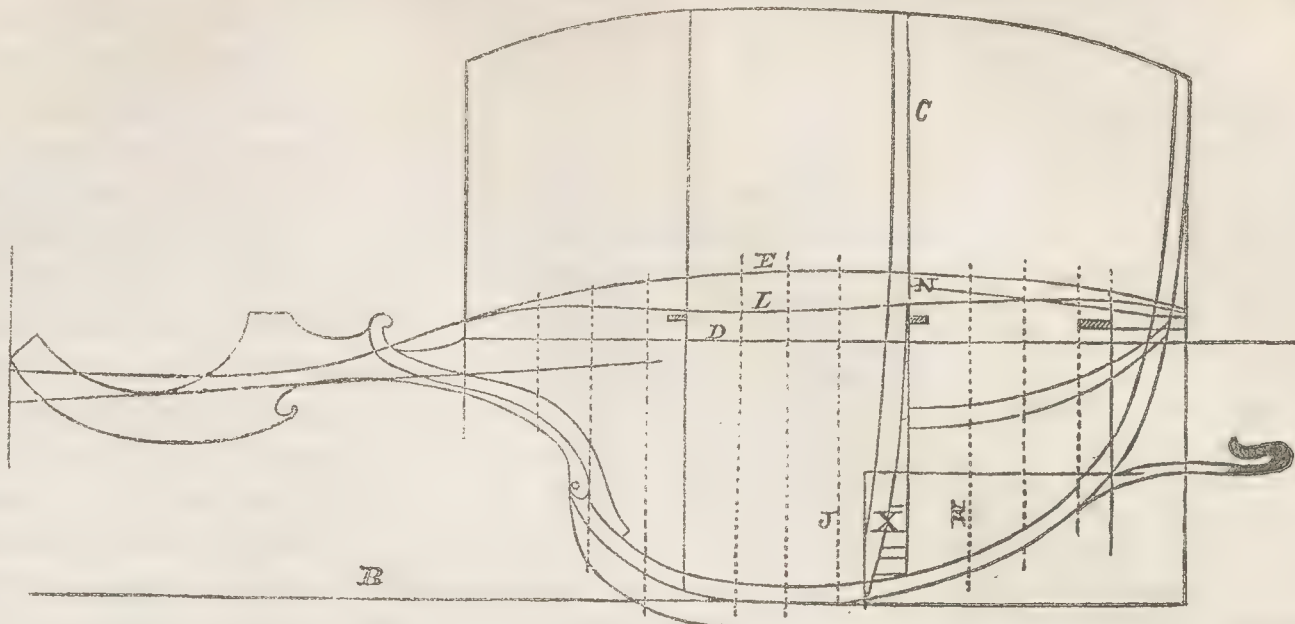
In our next we will give a new style of hammer seat for coaches.

A CARD.

The subscriber will exhibit a beautiful *model carriage* of "Free-man's Patent" in the city of Toronto, C. W., in the early part of the present month. In point of ease and comfort, this carriage is unequaled by that of any other now in use.

ISAAC MILLER,

Assignee for all territory east of the Northern Toronto R. R.



For Saladee's Magazine.

SQUARE RULE—NO. 2.

In the February No. of the Magazine, in giving the width of the kant board at back end, and on back pillar it reads "lock end" and also "lock pillar, whereas it should be *back end* and *back pillar*. In that No. we gave the outline for the kant board, and we will now endeavor to further explain it. The curved line L drawn through it lengthwise is intended to represent the outside of bottomside, and may be obtained by placing one point of the dividers on, say dotted line M at the lower side of bottom side, and the other on base line B, then move the dividers along to perpendicular line C or back standing pillar; place both points of dividers on line C and from the upper point of dividers to X line is to be subtracted from line M on kant board, and what is left between lines C and D will be the width of the bottom side at that point. By the same process the width of bottomside may be obtained at any point always by placing one point of the dividers on base line directly where you wish to get the size of the bottom side, and then moving them back to C line and measuring as above.

The back standing pillar is placed in the bottom side, as shown in kant board; the distance from face of bottom is obtained by measuring from line T to face of the pillar. In framing front standing pillar you will be governed altogether by the width of the kant board, allowing the difference of whatever it may be, either wider or narrower, making as the kant board may call for. It will be seen that ours is 1 in. narrower, consequently, is framed 1 in. nearer the face of the bottom side.

Line N is the face of the belt rail, and by placing the same on the draft board, and transferring all the perpendicular lines to it, and by measuring the same distance on each line as shown in the drawing, you will have the correct swell for it; this can, and should be done at the time of dressing timber for the body, and in framing it, by gauging from the outside. You at once accomplish what was once a tedious operation of cutting and fitting in framing the arm or belt rail.

(To be continued.)

WANTED IMMEDIATELY,

A first rate body maker; one competent to take charge of a shop as foreman, to whom a permanent situation and liberal wages will be given. Address THOMAS & JOHN GRENVILLE, Thorold, C. W.

The great commit almost as many meannesses as the low; but they commit them in the dark, and make a parade of their virtues: they remain great. Little men unfold their virtues in the shade, and expose their wretchedness to the light: they are despised.—Balzac.

Men, by associating in large masses—as in camps and in cities: improve their talents, but impair their virtues, and strengthen their minds, but weaken their morals; thus, a retrocession in the one is too often the price they pay for a refinement in the other.—Colton.

Dress has a moral effect upon the conduct of mankind. Let any gentleman find himself with dirty boots, old surtout, soiled neck-cloth, and a general negligence of dress, he will in all probability find a corresponding disposition to negligence of address.—Sir John Barrington.

EDITOR'S TABLE.

JUNE, - - - - - 1856.

FASHION.

LOUISVILLE, Ky., April 6th, 1856.

C. W. SALADEE—*Dear Sir*:—I commenced as a subscriber to your Journal with the first No. of the present volume, and seeing that you are generally of a liberal turn of mind, I have ventured to offer *one* objection to your very popular Magazine, and also a suggestion, which if adopted, I think will tend to giving still greater notoriety to your work.

The objection is that you do not pay a *due* regard to *fashion*. You admit a variety of designs, (original to be sure) not at all sanctioned by *fashion*, or those leading men in our fraternity who are looked up to in New York, Paris and London. Supposing those literary gents who are engaged in publishing fashionable designs for wearing apparel should adopt your course; how would they get on? They would not for a moment think of admitting any design, though it were original, that did not emanate from those three great fountain heads of fashion.

I cannot think but that if you would adopt the plan of giving the latest fashions from those cities above named, and leave all else go, it would be the means of giving you a circulation for your journal, *far* beyond that which it already has, and I sincerely hope you will give this your attention, as it will not only add to the popularity of your enterprise, but you will find that it will more fully and completely meet the wants of every coach-maker extant.

Hoping that you will receive this in the same friendly spirit with which it was penned, I remain dear Sir,

Yours, &c., N. A. M.

All this would have sounded rational enough if it had found utterance in the days of Queen Ann, but in this age of progress it betrays a discord that sounds horrible in the ears of every man who is not wholly governed by the tyrannical laws of *fashion*! Fashion, indeed! If that were *our only* standard for the future guidance of this journal, we would abandon it with disgust. Though we do *admire* and are most willingly governed by all the reasonable requirements of the haughty goddess, yet we have not the *least* disposition to yield obedience to her when she would lead us to the *ridiculous* and *hateful*. On the contrary, we would rather swear off all allegiance to her power and mark out a course of our own.

Rev. Sydney Smith has it—

"You can no more exercise your reason if you live in the constant dread of laughter, than you can enjoy your life, if you are in constant fear of death. If you think it right to differ from the times, and to make a point of morals, do it, however rustic, however antiquated, however pedantic it may appear; do it, not for insolence, but seriously and grandly, as a man who bore a soul of his own in his bosom, and did not wait till it was breathed into him by the breath of fashion."

The most characteristic vice or weakness of the age, is an infatuated obedience to the whims and caprices of fashion. It matters not how absurd her demands, or how unnatural her laws; mankind with a strange fatuity meekly bows the neck to the yoke of the Protean goddess.

What, we ask our friend, can be more ridiculous than the semi-annual changes of dress?—Changes that are as nicely noticed and as strictly followed by the boot-black and the maid-of-all-work who apes her mistress, as the dandy who now loses his attenuated shanks with oriental breadth of leg, gracefully poises a stovepipe on his scented locks, and sports a coat long in the waist, but awfully deficient in the skirt, and anon is seen with a slouch hat, his coat reversed; long end down, *no* waist, and skirts dangling with his calves, and pants so tight as to subject him to the vagrant law, as "one having no visible means of support." Were this *all* the evil,

it were hardly worth a moment's thought. Hundreds undergo the frequent ludicrous metamorphoses without giving the matter any attention. Their tailor or milliner more frequently decides their style of dress than they do, and they are no less men and women in one dress than in another.

There are doubtless many who make a point of these matters, and who are miserable unless dressed *a la mode*. As for such, why, God save them, although it were "a large economy in him to save the like." But fashion is not content with dictating to mankind what they shall wear, at what hour they shall dine, or how they shall greet a well dressed black-leg and cut a philosopher in rags, but she seeks to mould their *opinions*, and control their *thoughts*, so far as they are expressed in actions, in other matters than dress and etiquette. How far she has succeeded, every one can judge by observation, or by turning the thoughts inward and inquiring if "public opinion," that terrible bug-bear has not often coerced us into measures *popular* but not *right*, and dampened feelings and smothered thoughts that have struggled for utterance for years.

Who, indeed, has not at some time felt the almost imperceptible and yet all powerful influence of public opinion, in controlling his actions? 'Tis well that such a restraint is thrown around us, and he who is beyond its reach, has attained a degree of *hardness* not at all enviable, but he who hesitates carrying out any moral, religious, political, or *mechanical* principal that the head and the heart say is *right*, for fear of unpopularity, is more truly a *slave*, than one who moves at the bidding of a task master. The professional man who yields a ready assent to, and acquiesces in all the various conflicting theories of his *patrons*, and never dares give an opinion on any question of public or private interest, until he first considers whether it be popular or likely to affect him pecuniarily, is unworthy the name of *man*, for he lacks all that makes him such—soul. And yet how many such social weather-cocks there are in the world, and some not farther from our sanctum than Louisville, Ky., who pass through life with a yielding, cringing air, a conciliatory, unchanging soulless smile upon their face, bowing obsequiously to every one above them in point of wealth or station, however unacquired, not from any innate sense of *politeness*, but that "thrift may follow fawning." Is anything more contemptible? or is their aught more noble among all created things, than a man who, with an interest to guide, and a bold and fearless heart that laughs at the world's opinion when it comes in contact with *duty*, dares do right under all circumstances, who is ever ready to acknowledge the right to others whose heart is a never-failing fountain of dignified courtesy, yet looks with scorn upon all *pretenders*, however much they may be gilded with wealth and the magic breath of fashion? Not a contentious, envious, obstinate, bullet-headed being, who glories in being on the opposite side of every question, who, proud of an insolence which he fancies is manly independence, seeks a quarrel upon all occasions; but the man whose characteristics are strength of mind and firmness of purpose, with that gentleness that avoids all unnecessary disputations, fairly considering the suggestions of every man, and yet forces respect from others by his calm, self-reliance, and manifest determination to maintain the *right* at all hazards.

It is of such material that all the really great and good who have dared to think and *act* in opposition to established theories and customs, are made, and if our good brother in Louisville would throw off that degrading yoke which compels him to pay homage to the few who figure pompously in the great cities of the world, and lend a willing ear to the various valuable suggestions of his brother mechanics, whether they be of the town or the city, the country or the village, we could entertain the hope, that, in the course of hu-

man events, his name might be worthy of record in that book which shall tell to nations yet unborn, of the *enterprising* and *independent* spirits that figured upon the American stage in the present century.

R. T. LEECH, PITTSBURGH, PA.—By referring to our advertising department in this No. of the Magazine, it will be observed that the above gentleman is still surviving, notwithstanding the tremendous opposition he has had to contend with in his own city for the year past. Mr. Leach has been engaged in his present business for the last eight years, and we are happy to find that few have been more successful. There is no article which can be bought for carriages, that is not to be found at this house, of the best quality and which are offered on such terms as cannot fail to render satisfaction. Those of our craft going to Pittsburgh cannot do better than make the acquaintance of Mr. Leach at No. 127 Wood street.

DUNLAP'S COACH FACTORY.—On the second page of cover to this No., of the Magazine, we have the pleasure of giving a splendid illustration of the mammoth Coach Factory, known as "Dunlap's Phoenix Coach Works," situated in Philadelphia. The proprietor of this concern is now doing a very extensive business in his line, and is continually shipping carriages to dealers and others, south and west. We are informed that at the present time three hundred hands are employed in this factory, which fact alone will give our readers something of an idea as to the number of carriages turned out of this house every year.

OUR RETURN HOME.—While in Baltimore a short time since, we were *upset* with another attack of the "ague," which detained us for several days, in consequence of which, (together with a dispatch that met us in New York, communicating the painful intelligence that our family were lying sick) our calculations of visiting a host of friends throughout New England were likewise upset, as we were compelled to hasten home with all possible speed. This must account for our non-appearance at various places, as promised by letters from Philadelphia.

THREE WHEELED VEHICLES.—A number of our friends have written us to know something about the "Three Wheeled Buggy," patented by Mr. French, of Binghamton, N. Y., and some of them have earnestly requested that we would give an illustration of the same. In reply to which we can only say, that we expect to give an illustration of this buggy as soon as we can obtain the necessary drawings, and permission so to do. The patentee has adapted an important improvement on his original plan, of which we have seen a model; however, it yet remains to be tested when practically applied, after which we will endeavor to give the necessary illustrations in the Magazine.

Our "Three Wheeled Phaeton" in our next issue. It is not yet completed as we had expected, and promised in our last, but shall certainly appear in our next.

VERLEGER'S PATENT.—Since the May No. of the Magazine has been issued, containing illustrations of the above patent, we have received a great number inquiries as to its mode of operation, &c. We have just inspected a buggy with this improvement applied, and in point of simplicity of construction, lightness and strength, we are free to say, that it surpasses any other coupling now in use. In our next No. we shall endeavor to illustrate its operation, and thereby give our friends the information required, and moreover it will prove an interesting item to our readers generally.

Editorial Chip Basket.

BY E. M. S.

This fellow picks up chips, as pigeons peas.—SHAKESPEARE IMPROVED.

HACKNEY COACHING IN NEW YORK IN 1790.—Sixty-five years ago coach hire was cheap compared with the present prices demanded by an insolent "cabby" who if he himself does not succeed in fleecing the "green horns" of all their "tin" leaves the work to be completed by his "baggage smasher" and the two practice "knocking down" so extensively as to leave but little for the owner wherewith to pay his coach-maker his dues. The following is from the City Directory for 1789-90. "To take up and set down one passenger within one mile, 1 shilling; two passengers, 2 shillings; to the two-mile stone and around by CUMMING'S, (a tavern in Water-street) for a party, &c., 6 shillings; Horn's Tour, 8 shillings; Lake's Tour, 10 shillings; and for each hour the carriage may be detained on the above routes, 2 shillings; for waiting on company in the city, 3 shillings per hour." Now, notwithstanding a strong opposition from R. R. cars and omnibusses, the fares charged are at least 50 per cent. higher, and then (as was the case the past winter) a coach can scarcely be got at any price unless the person applying is a regular customer.

"NIGHT HAWKS.—We imagine we hear some inquisitive reader of "Chip Basket" in astonishment asking the question "What has ornithology to do in connection with coach-making?" Well, we will endeavor to satisfy your very natural curiosity. Be it known then to all chicken hearted swains and timid dames from the country, that we have in New York Coach *ornithology*, what in common parlance is called a *night hawk*; that is a coach which has so long battled with rough pavements and dilapidated curb-stones, and been so often to the Coach-makers, that scarcely an original portion of it is left, and withal has such an *owlish* exterior and *greasy* interior that it does not venture out in daylight, but yet like its namesake crawls out at night and is the most "illegant coach sure" in the city. We would advise our country cousins arriving in New York *by the light of the stars*, to examine every "illegant coach" before *jumping in*, unless their necks are insured, and they have no respect for the insurers! We have always wondered why these "birds" were allowed to *fly*—we have come to the conclusion that the inspector is asleep whilst these "hawks" are around.

STAGEING IN THE OLDEN TIME.—In 1790 the mail stage from New York to Boston left Courtlandt-street on Mondays, Wednesdays and Thursdays, leaving Boston on the alternate days. Seven years ago it left 25 Bowery every morning, since which time it has been run off the course by the New Haven R. R. Co., and the landlord of the Inn "run into the ground." To Albany from New York stages went on Mondays and Thursdays. There were several routes to Philadelphia, the fare being \$3, about the same as is charged now, with this difference, travelers did not *then* have as good an opportunity presented for joining the "spiritual circle" as is now offered by the Camden & Amboy R. R. Co.

HOW TO GET A HORSE UP.—A correspondent of the *Times* says: I have been much amused, while in New York, to observe when a horse falls down, they try to lift the poor creature bodily from the ground, he kicking and floundering all the time, breaking shafts, traces, &c. Some people who drive horses every day, appear to know very little about them. By simply putting your foot on his head and keeping it on the ground, a horse cannot move. In that state it is very easy to unhitch him; then by backing out your wagon he is all clear.

A PHILOSOPHER'S NOTIONS, *versus* THE CARRIAGE MAKERS' INTERESTS.—An ancient philosopher and physician of Prussia, a town in Bithynia, named Asclepiades, in his time tried to bring cheap locomotion into general favor, and to set an example he traveled about the world on a cow living on her milk by the way. His eccentricities won for him a wide spread reputation for skill in the healing art, such as is often the case in our times; the peculiar manners of such persons merely, pointing them out and crediting them as being smarter than their cotemporaries.

"THE GRAY MARE IS THE BETTER HORSE."—The application of this proverb is very generally understood, yet doubtless there are but few of the readers of our "Chip Basket" who have ever heard the story on which it is founded. A gentleman who had seen the world, one day gave his oldest son a span of horses, a chariot, and a basket of eggs.

"Do you," said he to his son, "travel on the high road until you come to the first house in which there is a married couple. If you find that the husband is *the* master there, give him one of the horses. If, on the contrary, the wife is the ruler, give her an egg. Return at once if you part with a horse, but do not come back so long as you keep both horses, and there is an egg remaining."

Away went the boy full of his mission, and, just beyond the borders of his father's estate, lo! a modest cottage. He alighted from his chariot and knocked at the door. The good-wife opened it for him and courtesied. "Is your husband at home?" "No;" but she would call him in from the hay field. In he came, wiping his brows. The young man told them his errand. "Why," says the wife, bridling and rolling the corner of her apron, "I always do as John wants me to do; he is my master, ain't you, John?" "Then," said the boy, "I am to give you a horse: which will you take?" "I think," said John, "as how that bay gelding seems to be the one as would suit me the best." "If we have a choice, husband," said the wife, "I think the gray mare will suit us best." "No," replied John, "the bay for me; he is more square in front, and his legs are better." "Now," said the wife, "I don't think so; the gray mare is the better horse, and I shall never be contented unless I get that one." Well," said John, "If your mind is set on it, I'll give up; we'll take the gray mare." "Thank you," said the boy, "allow me to give you an egg from this basket; it is a nice fresh one, and you can boil it hard or soft, as your wife will allow." The rest of the story you may imagine; the young man came home with both horses, but not an egg remained in his basket.

THE NEW YORK CITY PASSENGER AND BAGGAGE LINE.—This excitable Gotham of the New World was, not long since greatly agitated with the new-born-idea of "one grand scheme" for giving a death blow to the ancient fraternity of "baggage smashers," who have been so established here, forming part and parcel of the hacking business. We very much fear that the concentrated wisdom of our city fathers (!) for the purposes of granting a privilege of establishing a New York city Passenger and Baggage Line will be entirely lost, so far as any reform beneficial to the public may be looked for, at present. The project was for the common council to authorise the Mayor to issue licenses to a company which had been organized under the title of the "New York Passenger and Baggage Line" to keep and run omnibusses not exceeding fifty in number, for the conveyance and transportation of passengers and their baggage to and from and between railroad depots, steamboat landings and hotels, and subjecting the coaches and omnibusses so licensed to the rules and regulations now applicable to hackney coaches and carriages. The plan has already been carried into successful operation in other cities of the Union, so far as to warrant its success if put in operation here, by giving us a cheaper and more accommodating system of conveyance, reducing the fare from the different landings to the different hotels to 25 cts., instead of, as now, giving the hackmen an opportunity to swindle the public by

their exorbitant charges. The subject was referred to the committee on ordinances, for the purpose of giving those interested an opportunity of being heard. When this committee next met about twelve or fourteen persons interested *pro* and *con* appeared before them. The hackmen whose interests would have been seriously injured by any reform in the business, sent an agent in opposition to any change, claiming that there was no necessity for the proposed line and asserting that the conveniences at present afforded, were sufficient to meet all the wants of the city,—that the fifty omnibus-spoken of, would not only be of no advantage to the public, but would seemingly obstruct the travel in the public thoroughfares—and besides it would very much injure the hundreds of persons already engaged in that business.

P. S. TO THE ABOVE.—Since the above was written, the Councilmen's committee on ordinances have met again to give the parties interested a further hearing. Mr. LELAND, proprietor of a hotel, spoke first, and said that he had been connected with hotels in New York since 1838, and knew of the monstrous, impudent, and bare-faced extortions to which passengers arriving in New York were subjected by the owners and drivers of hacks and cabs. The object of this new line was to protect them against such impositions. As it is now, all the leading hotels require some twenty horses each. This plan would require but the number of horses at present used at the St. Nicholas and Metropolitan hotels, and a proportionate reduction in the number of men employed—that the new price of fare would be 25 cts., instead of from 75 cts. to \$2. A member of the committee having observed that hackmen had not grown rich by *their* extortions, the speaker observed that the reason why was in the fact that "in iniquity there is no prosperity." A system like the one proposed had been adopted in London and Paris and other leading cities of the Old World, as also in numerous cities of the United States. It works to a charm, the beauty of the system being that it prevented the passenger from coming in connection with the driver. After speeches from others for and against this proposed line, Councilman Merritt and others amused themselves with anecdotes of the impositions each had heretofore submitted to from hackmen.

The most pointed circumstance related was by Councilman Merritt. He said he went to Albany some time since, before he got to be Councilman, and with his wife took a hack to be driven to a hotel some forty rods from the railroad depot. As he did not travel very often, he would be quite liberal, and so upon reaching the hotel he put his hand in his pocket and offered the driver seventy-five cents.

"No you don't," said the driver. "My charge is two dollars."

"Here, wife, take this carpet bag," said Mr. Merritt, "while I whip this man."

Mr. Merritt said the driver immediately took the seventy-five cents offered him. Subsequently, upon being informed by Mr. Merritt that he was a carman from New-York, and somewhat "posted" as to hack charges, the driver sought reparation by asking him to drink.

The Committee, both sides having been heard, announced that no further public meetings would be held, and that they would report speedily upon the matter before them.

CORRECTION.—In the May No. of the Magazine we stated that Deihm, Huffman & Ridgeway, of Pottsville, Pa., owned the right of "Verleger's Patent Coupling," for the States of Pennsylvania, Ohio, Indiana and New Jersey. By some mistake we substituted Indiana for New York. The territory they own is Pennsylvania, Ohio, New York and New Jersey.



A MODEL CARRIAGE FACTORY.—A RARE CHANCE FOR BUSINESS.

A few days since we had the pleasure of making the acquaintance of Mr. John Hill, of Elmira, N. Y., and that of inspecting his large and commodious factory. We have in the course of our travels seen some few establishments more extensive than this, but have never visited one more convenient or better adapted to the business, and certainly the arrangement of this factory reflects great credit upon Mr. Hill, and especially so when we take into consideration the fact, that by profession he is a merchant instead of a practical coach-maker. We would that all merchants possessed the same amount of mechanical genius. The annexed engraving is a correct illustration of the exterior of this factory.

The following explanation of the same will give something of an idea as to its extent and general arrangement.

The factory was built in 1854, and is situated on the corner of Cross and William streets. The lot on which it is erected is 175 feet by 115. The building is constructed of brick with limestone caps and sills, is two story and attic, with tin roof; the brick work painted inside and out, the building 114 feet on Cross street, and 80 feet wings with round corners; there is a cellar 80 feet by 30; stone laid with water lime, and the entire mechanical execution of the building is of the most substantial and durable character; 60 feet of the lot is occupied by a dwelling, which space can be used to enlarge the manufacturing facilities when desired.

Mr. Hill, from embarrassment in the mercantile business, in which he has been engaged for fifteen years past, has been obliged to relinquish his project of making the carriage business a life pursuit, and has recently disposed of his Carriage Factory to Mr.

Sam'l Partridge, a gentleman that cannot give the business the attention it requires, and who offers the property for sale at a low price, and on terms that offers a liberal inducement. To any one wishing to engage in the business he offers the entire property for \$10,000, and would allow \$6000 of the purchase money to remain in bond and mortgage on the premises for two years if desired.

There is a choice collection of lumber and materials generally, on hand, that would be disposed of with the establishment, as well as tools and fixtures. Mr. Hill has charge of the business until satisfactorily disposed of by its present owner, and will answer any inquiries in relation to the property promptly. The business will be continued and the present high character of the establishment kept up for the benefit of the purchaser.

The business the past year (three-fourths, as Mr. Hill states, having been done in orders) exceeded \$20,000, and we believe, with him, from the appearance of the town, and there being little or no competition, that the business could be increased to an almost unlimited extent.

Every facility is afforded to forward work from Elmira, there being canal communication with Chesapeake Bay, also with New York and the West, and Railroad communication East, West, North and South. Coal, iron, and all materials used in the construction of carriages can be concentrated as low at this point as at any place within our knowledge, being nearer headquarters. Possession given immediately if desired.

Jenkins & Sons, of Baltimore are reported as being the most extensive Coach Hardware and Trimming merchants in the United States. Their card will be found in this No.

Contributors to this Number.

"NEW HAVEN BUGGY,"	J. E. Manley, Conn.
"SOUTH CAROLINA WAGON,"	Fred. Cott, S. C.
"BOSTON PHÆTON,"	Editor.
"ANOTHER RESPONSE,"	Sam'l Higbee, Ill.
	Saunders & Richardson, Sheffield, Eng.,
"THE MAGAZINE IN EUROPE,"	A. J. McLearn, Edin- burgh, Scotland.
"IMPROVED AXLE BOX,"	E. M. Stratton, N. Y.
"EDITORIAL CHIP BASKET,"	" "
"HISTORY OF CARRIAGES AND CAR- RIAGE-MAKING,"	" "
"ON TRIMMING,"	M. G. Towsley, Ohio.
"PAINTING BY A PAINTER—No. 5,"	B. McCracken, Mo.
"TRIMMING DEPARTMENT,"	G. D. McLane, N. Y.

ANSWER TO CORRESPONDENTS.

A. R. N. & Co., of Ala.—So far as we have heard from those who are using Silver & Dole's Patent Hub Boring Machine, the report has invariably been favorable: and from our own experience in its practical operations, we are warranted in fully indorsing all the manufacturers of this truly valuable improvement claim for it.

M. T., of N. Y.—We have never yet seen a Spoke Lathe that would turn more than five spokes at one and the same time. We should think there was sufficient novelty in your machine to merit your application for a patent. Turning 20 spokes at once, and with such simplicity and speed as you assert, is certainly something new and worthy your unreserved attention in bringing it before the public.

W. W. W., of Mo.—We have already mentioned in this column in the Magazine, that A. E. Smith, of Bronxville, N. Y., can furnish a Spring Axle. How they will do in point of durability we cannot say as we have never used them.

S. W., of Ia.—A spiral spring for carriages in the shape you propose, can never be made to answer the purpose, and furthermore, it is our opinion that all the time consumed by any man in devising a plan for the application of spiral springs for carriages, is just so much time foolishly thrown away. To say that the application of such a spring to any practical advantage could never be brought about, might be an assertion too bold to suit the notions of many of our fast inventors, but we make it nevertheless, and without the fear of contradiction.

Messrs. R. & Co., of Pa.—We have materially altered the design of our Three Wheeled Carriage, and in due season will give illustrated views, showing all the different parts.

J. G., of N. Y.—Our Agent, Mr. Dexter, will visit your Factory during the present month, and attend to your requests. Drawings are received.

E. & M., of N. Y.—We have no list of prices from the Queen City Varnish Co. Write to them for it at No. 43 Vine St., Cincinnati.

S. W. C., of Pa.—We answer your inquiry with pleasure, and refer you to Simon Geheres, of Milton, Pa., as the person who has used ninety-one sets of Sprout's Springs, at the time of publishing May No. of Magazine. We have no hesitancy in referring any carriage maker to Mr. Geheres, he having thoroughly tested the above Springs.

A. M. N., of Mass.—A letter addressed to our assistant (106 Elizabeth St., N. Y.) would bring you the required information, as he has patented the axle you refer to.

REFORMATION IN PITTSBURGH.—On the 25th of April we found ourself in Pittsburgh. While here we made the acquaintance of Messrs. James Dilworth & Co., who we were much pleased to hear, were just making a worthy effort to bring about a reformation in the spring and axle department of that city, by establishing a Factory on the most extensive scale, for the manufacture of the first quality of case hardened axles, and English tempered and cast steel springs.

We are happy in being able to record so worthy a step in behalf of Pittsburgh, for surely there is no city extant that so much needs spring and axle missionaries, and these gentlemen, we think, will do a good work. We shall have more to say of the new firm hereafter.

AN IMPORTANT IMPROVEMENT IN "CLARK'S SHAFT COUPLING.—Many of our subscribers have complained to us respecting one objectionable feature embraced in the Shaft Coupling made by Messrs. W. J. Clark & Co., of Southington, Conn., viz: its liabilities to wear loose and rattle. We have just seen one of the proprietors, who informed us that they have made an improvement by the most simple application, which will entirely obviate this serious difficulty. We are happy to hear this, for if it can be made to embrace these latter advantages in combination with the good qualities it previously possessed, it will become one of the best couplings in the field at the present day. It will be illustrated in the Magazine as soon as ordered by the proprietors, which will doubtless be very soon.

Tho's McKenzie & Sons, as will be seen in our advertising department, are very extensively engaged in the Saddlery, Coach Hardware and Trimming business in Baltimore, and Mr. M. has been established in his present location for a great number of years, and there are few gentlemen now engaged in the business more favorably known than is he.

Allen Paine, whose card will be found in this No., has for the last twenty years been successfully engaged as an extensive importer and dealer in every description of Saddlery, Coach Hardware and Trimmings. Those giving this house their patronage will be satisfactorily dealt with.

DELAY.—Owing to the delay which was caused in our publishing house by the putting up of a new steam engine, has thrown this No. of the Magazine over its regular days of publication some four or five days. This explanation we trust will be a satisfactory apology for the late appearance of this No. The subsequent No.'s shall appear regularly as heretofore.

LIST OF PATENT CLAIMS ON CARRIAGES, ISSUED SINCE OUR LAST PUBLICATION.

WHEEL HUB.—James Summers, of Raleigh Court House, Pa.: I claim my improved wheel hub, composed of pipe box b, and its radially grooved central flanch c, combined with the half hubs and their radially grooved flanches and with the embracing band g, substantially as set forth.

ATTACHING THILLS AND POLES TO VEHICLES.—A. J. Gibson, of Clinton, Mass.: I claim the manner of attaching thills to vehicles by means of iron hinges independent of each other, without a cross bar, for the purpose and in the manner and form substantially as set forth.

RAISING AND LOWERING CARRIAGE TOPS.—Alanson Quigley, of Sheldrake, N. Y.: I claim the box B, cog lever A, pawl D, and cog wheel C in combination.

DRIVING SPOKES.—Christian Hass and John C. Noble, of Chicago, Ill.: We make no claim to the driving arrangement separately considered, but we claim the adjustable hub bed and spoke bed, in combination with the driving apparatus, the several parts being constructed and arranged substantially as and for the purposes set forth.

JOINT BODIED BUGGIES.—Edwin J. Green and Moses H. Wheeler, of Cedarville, N. Y.: We claim supporting the front or seat section of a joint body carriage on a spring reach by means of a bolt or equivalent support, whereby we avoid the use of a spring as heretofore used under the seat, but still have the advantages of said spring by using the spring reach as such, substantially as set forth.

EXENSION WAGONS.—E. D. Rozencrantz, of N. Y. City: I claim the employment of the slide bars, b c a, constructed as described, when used with the bars K K, in the manner and for the purposes substantially as set forth.

SAWING FELLIES.—S. and Wm. H. Brook, of Rushville, Ohio: I claim having the saw by means of adjustable arms to a horizontal shaft or axle, thereby allowing the saw to descend by its weight through the circular path forming the curvature of the felly, substantially as described.

WAGON TONGUE.—J. T. Brughman, of Frazeysburgh, Ohio: I claim constructing the tongue in two separate parts, A and B.

Second, I claim the arrangement and combination of the hounds, J J and S S, for the purpose of connecting the tongues, A and B, together substantially in the manner and for the purpose set forth.

PROSPECTUS FOR VOL. 1, 1855, OF THE COACH-MAKERS' ILLUSTRATED MONTHLY MAGAZINE.—REPRINT—FOURTH EDITION.

Every individual who is a subscriber to the present volume of this journal, very soon perceives that without the first volume his work is incomplete, and therefore does not possess to him that practical worth it would be susceptible of doing were it complete from the first No. Owing to this fact, a demand has been created for the back numbers, (among those who have but commenced with the present volume,) so great that we are induced to offer this Prospectus, and propose to reprint a fourth edition as soon as we shall receive 1000 subscribers for the same, (of which No. we now lack but one half,) and if all those who have already made inquiries concerning the back numbers will send in their names, the 1000 can be made out immediately, and we will forthwith proceed to reprint a large edition. The volume will be neatly bound in muslin, with morocco gilt back and corners, and will be furnished to single subscribers at \$4.00, or ten volumes for \$30.00, free of postage to any part of the United States. The money to be forwarded as soon as we notify the subscribers that the volume is complete, and ready for circulation, or to the Post Master on delivery. At present we want only your names and orders for the vol. 1.

OUR PRINTING ROOMS.

Advertising is one of the grand secrets to succeed in any or all mechanical pursuits, and the individual who in this age of printing neglects to give that publicity to his business which the times demand, is standing in his own light, between himself and that very dollar for which he is so eagerly contending, and in no branch of mechanism is it more called for than among the coach-makers. Every proprietor who is doing a tolerable business, should have a standing advertisement of his factory with correct illustrations of the different kinds of vehicles he is manufacturing, or prepared to build to order.

Having now over two hundred fine engravings of all the latest fashions of carriages, we propose to furnish each proprietor who is desirous of getting up a good advertisement, with a chart neatly illustrated with the different styles he may select from our stock of engravings, with his card and such other matter as he may desire to have printed in the centre, and the whole enclosed in a beautiful border, which he can have suspended in all public places, and send a copy of the same to any person from whom he wishes to solicit an order for a carriage. What would attract more attention than to send to the livery keeper, into the farmer's family, or indeed to any one who you think would be likely to want a carriage, than one of those charts which at once represents the various kinds of vehicles you can furnish them? Surely nothing; therefore it will be of more benefit than any other way by which you can advertise. We will furnish such charts for from \$10 to \$50 per hundred copies, owing to the size, the number of engravings, number of colors in which they are to be printed, &c. &c. Orders solicited.

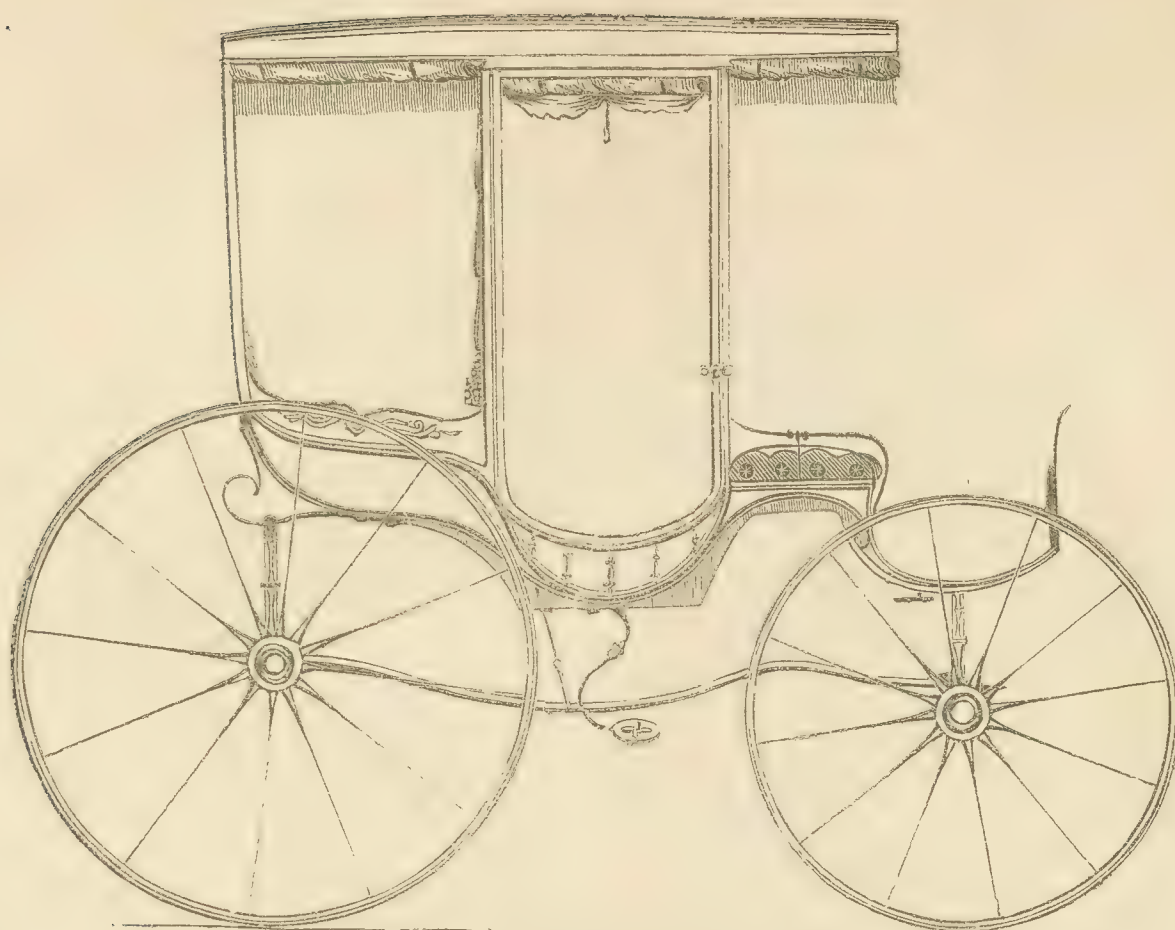


Fig. 37.—Light Four Passenger Rockaway.



Fig. 38.—Molton's Six Passenger Rockaway.

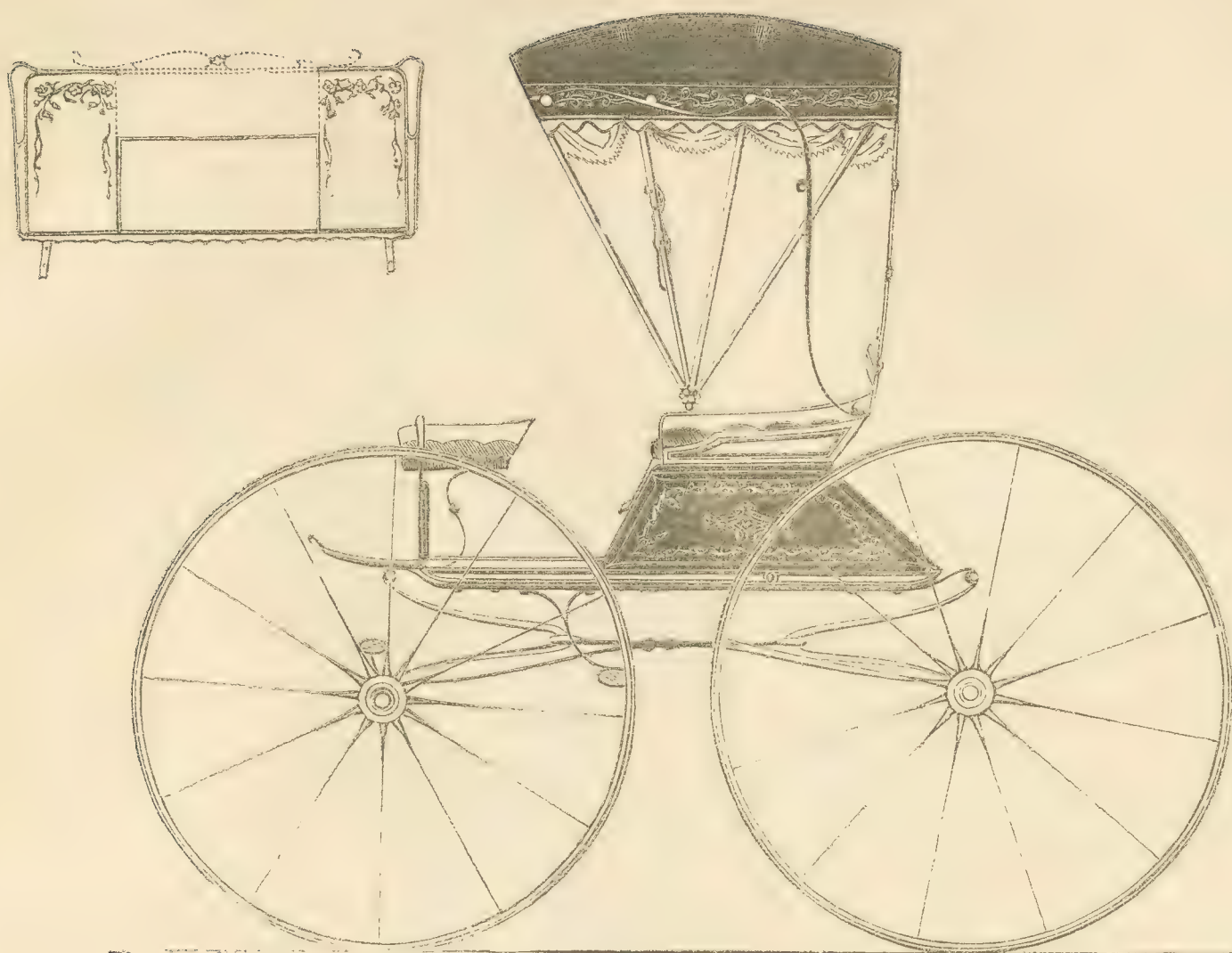


Fig. 39.—New York Shifting Seat Buggy.

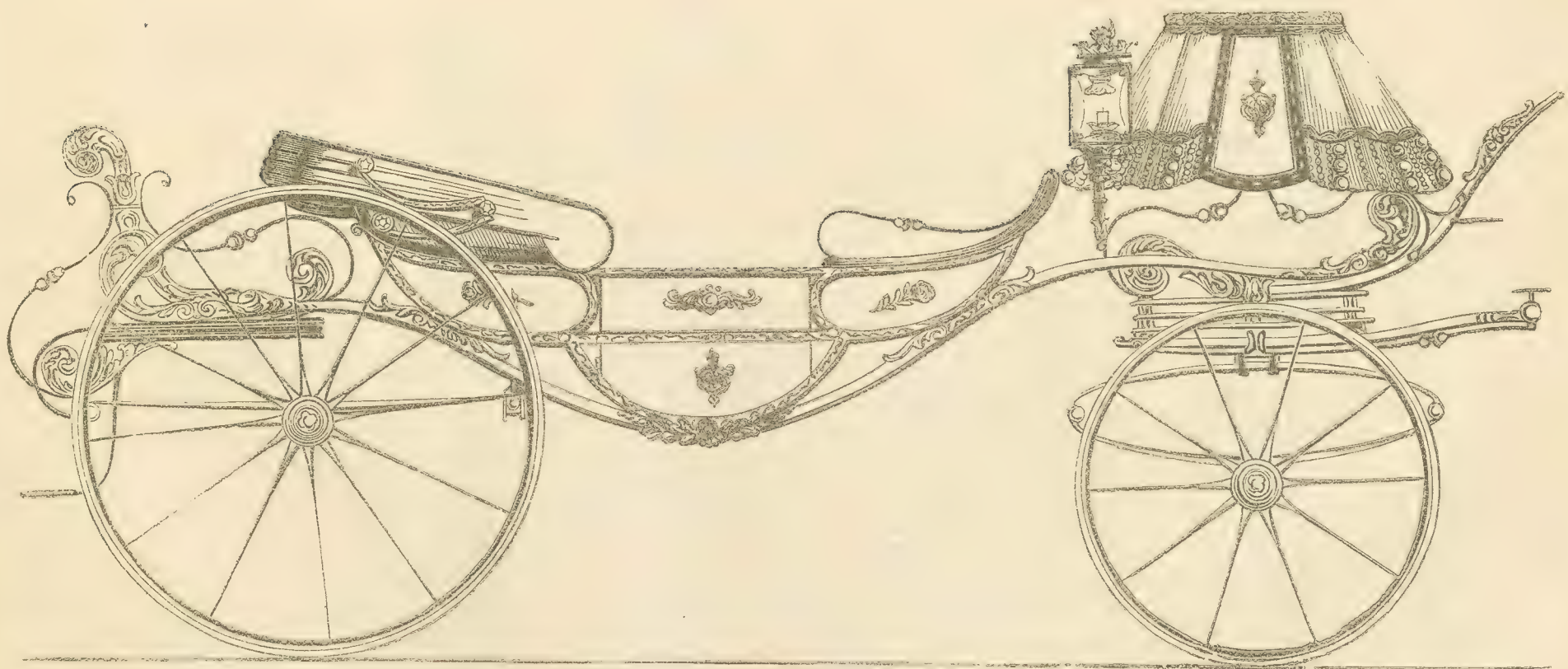


Fig. 40.—The French Barouche.

GREENLEAF'S PATENT COUPLING,

Patented April 8th, 1856.

Fig. 1.

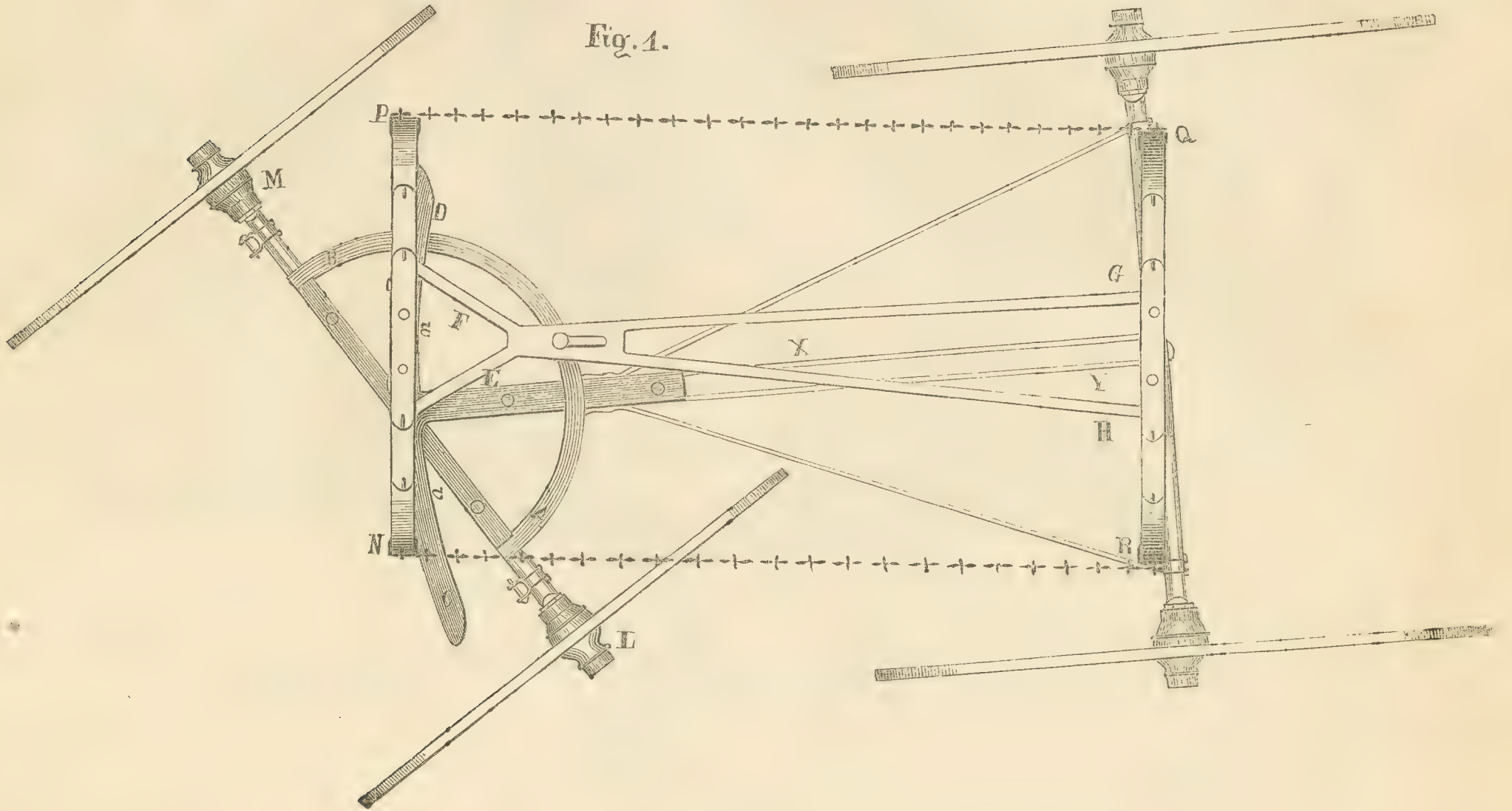
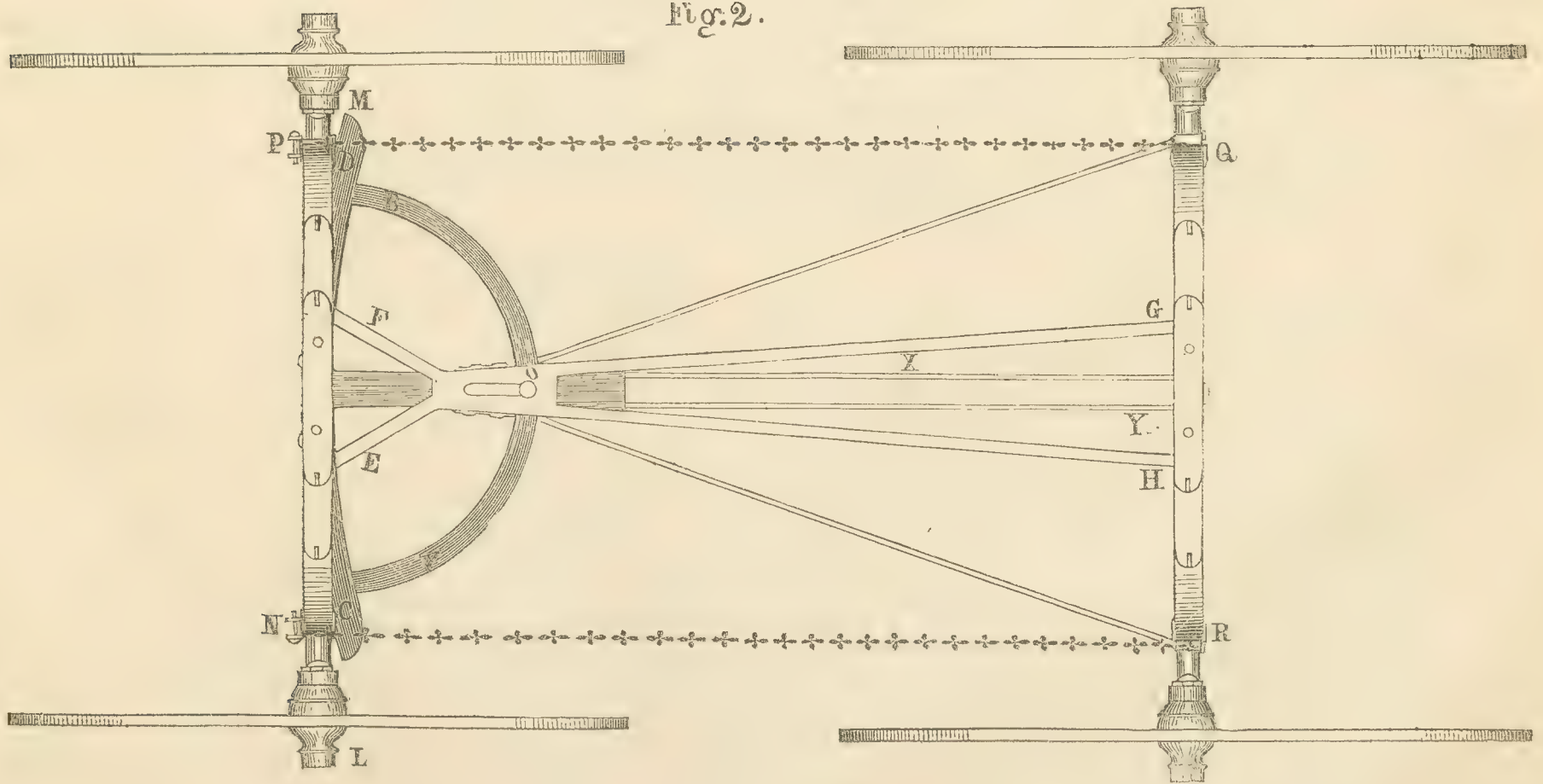


Fig. 2.





Volume 2.--Number 7.]

July, 1856.

[C. W. Saladee, Editor and Proprietor.]

TERMS:

Single subscription one year	-\$3 00
Clubs of three	" 8 00
" " six	" 15 00
" " ten	" 20 00

Payable invariable in advance.

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Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented stamped on the cover in gilt letters.

All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Persons visiting New York, who are not subscribers, can see the Magazine and subscribe by calling at the Office of the Coach-Makers' Magazine, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for New York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

Back Numbers, from January 1st, furnished to all new Subscribers.

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Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

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Fashions for July.

For Saladee's Magazine.

FIG. 37.—LIGHT FOUR PASSENGER ROCKAWAY.

I am now making a light Rockaway, the style of which is my own. Its perfect adaptation for either a one or two horse family carriage, and moreover the very neat and modest appearance it makes, is such, that I am induced to offer it for publication, and should the Editor of the Coach-Makers' Magazine think as well of it as I do, he is at liberty to use it in that way.

By consulting the drawing, you will perceive that the front part of the body is so arranged as to admit of the wheel turning under. The lower pannel in the back quarter is a correct representation of the original "Prince Albert," and is a continuation of the same, terminating at the junction of the front pillar. The door is skeleton, though a very neat sliding glass could be made of it. But in this

the object is lightness, and therefore no close work would be appropriate. It is solid side work. A. A. N.

For Saladee's Magazine.

FIG. 38.—MOLTON'S SIX PASSENGER ROCKAWAY.

EDITOR COACH-MAKERS' MAGAZINE—Dear Sir:—Having just completed what we term a most splendid "Six Passenger Rockaway," the design of which is entirely original with our foreman, (Mr. Baily,) we concluded that our friend the Editor, and a host of his readers would be pleased to see what we Hoosiers can do in the way of chopping out carriages, and especially our brethren (if we dare claim so close a connection with them) in the East, we imagine, would be curious to see a "full-blooded Hoosier carriage." We therefore ordered a sketch taken of the above, and herewith hand it to you for inspection; you will therefore use it as you think proper. The body can be made either solid side or pannel. The bottom side extends back and forms a loop or pump handle for the body to rest upon, and at the same time serves as a very appropriate finish for the lower part of the O G scroll. The drawing will further explain its construction.

R. M. & Bro.

For Saladee's Magazine.

FIG. 39.—NEW YORK SHIFTING SEAT BUGGY.

MR. SALADEE:—Allow me to contribute to your interesting journal a very handsome style of shifting seat buggy. The trimming of the one from which this sketch was taken, is of dark purple cloth; the fronts of the cushions, and the fall to seat being black patent leather and fancifully stitched. The head lining is a very light purple, the festoon curtains being made of the same material, and cut out in large scrolls, the edges of which are finished with cut notches, as a substitute for fringe. The seat is made solid, as represented in the sketch. To the front of this body is attached a very light and convenient moveable seat, a convenience much admired by the ladies of the city, as when two of them wish to ride out, they can use this light, open buggy, and have the service of a driver without the least inconvenience. The dash is constructed as represented by the figure accompanying the sketch, which you see admits of the seat as shown in the side elevation. The seat and foot-board are made in such a manner as to fold up when not used, and can be carried under the seat in the body, and in which case the opening in the dash is closed by a light frame work covered with leather by means of four thumb

screws, which will give it the appearance of the ordinary dash. This change is made in a very few minutes, and I think the convenience it embraces in a vehicle of this kind, is far more than equivalent to the difference in the cost of its application, and the trouble of changing when desired, and furthermore I am of the opinion that few would be without this extra seat if they but knew one half the convenience there is gained by its use. The extra expense to a buggy is not over \$10, and what man would not willingly give it?

The buggy above referred to has the Sprout Springs applied to it, the first I have ever seen, and the owner of the buggy told me that there was the greatest difference in the ease of them (over those paved streets) and the elliptic spring imaginable; the former riding so much better; the truth of which I could not comprehend until I had the pleasure of riding in it myself, and I am convinced you have not too highly recommended this spring to your readers, for certainly I should be willing to do it *stronger* if I had the chair editorial of the "Coach-Makers' Magazine."

Yours, most truly,

G. S.

(For Saladee's Magazine.)

FIG. 40.—THE FRENCH BAROUCHE.

The drawing of this beautiful French vehicle was sent us by our old and much esteemed friends, Messrs. Lawrence & Bradley, coach-makers of New Haven, Conn. This carriage, like every other article of French origin, bears the *ornamental* characteristic of that people, and when equipped ready for action, with four horses, decorated with the most elaborately finished harness, the driver and footman in full livery and freighted with its fashionable burden, the imagination can hardly conceive any thing more gay or splendid. But the enormous expense attending the construction of carriages of this stamp renders their use in this country very limited.

COMMUNICATIONS.

(For the Coach-Makers' Magazine.)

THE IDEAL, INCEPTIVE, AND PROGRESSIVE HISTORY OF COACH-MAKING.

PART FOURTH.—THE CHARIOT CONTINUED.

Ad altos
Deducit juvenem, Vulcania muneris, currus
Aureus axis erat, temo aureus, aurea summa,
Curvatura rotæ; radiorum argenteus ordo.

[OVID'S MET. LIB. 2.—105.—108.]

The form of the ancient chariot has been well preserved, not only upon the monumental walls of Egypt's ancient history, but likewise in the elaborately sculptured slabs recently brought to light by the industrious explorations of Layard and Botta, amidst the long entombed ruins upon the sites of ancient Ninevah, and Babylon. There, beneath the accumulated debris of more than twenty centuries has the alto-relevos of the terra cotta and chiseled slab,—during the ages when times' active finger was crumbling to dust alike,—

"Pauperum tabernaculum"
Regiomque twores."—HORACE, Od. lib. 1. ad. 4. v. 13.

faithfully preserved down to our day the ingenious works of past nations, so that no further testimony need be adduced in proof of the popularity in which the chariot was held, than the evident fact that it was represented in almost every historically sculptured record of events, of any importance. We find its popularity manifested in connection with the pagentry of wars memorials, mounted by the stalwart mail-clad warrior of a thousand hard fought encounters, armed to the teeth, and apparently offering defiance to his foes, while at the same moment his arrows are driven into the heart of any one so bold as to assault his high-born and skilful charioteer; or with a crowd of the conquered and crest-fallen enemy following bound to the tail of the victor's triumphal car; or, in the scarcely less excitable employment of hunting the king of the forests, or else contributing to the pleasures of a nation in the chariot races in the celebration of the olympic games.

As our readers will find the Egyptian chariot fully described in this work, (vol. 1. pp. 19 and 20) we need not in this connection enter into a comparison of the chariot as constructed by the different nations of antiquity for the purposes of carrying out the design of our subject by an elaboration thereof, since the reader who has patronized us in our former volume can do that for himself, but we may profitably enter into a brief examination of the form of that of Assyria, as represented upon the tablets of her prosperous eras, and thereby add to our stock of interesting knowledge. The war chariots of Assyria were more heavy than those of Egypt, but one peculiarity is particularly noticeable in the wheel, and that is the small size of the hub employed, which feature is in exact taste with those used in our day, but secured on its axle-tree with an ornamental linch-pin. Six and sometimes eight spokes radiated from the nave with an unnecessarily large and cumbrous rim of six fellows

with a short and highly ornamented body, open at the hinder part for convenience in stepping in or out, or probably leaping therefrom when rolling along—something after the manner of the ancient Gauls as described in the graphic pages of Cæsar's Commentaries—in order to let the warrior fight on foot and thereafter to ascend into and occupy his former position in the chariot. To the sides were attached, crossing each other two quivers filled with arrows, a small bow and a hatchet. Proceeding from the front of the chariot, over or between the horses, was a richly-embroidered appendage, which appears to have answered the purpose of that used in India, for keeping the horses apart. The embossed shield of the king was placed at the back of the chariot, for the purposes of security; in front a brass or iron bar was fixed to the pole as in the Egyptian chariot either in the shape of a swan's head, a ball, or according to the fancy of the builder. A spear was inserted in a place, behind the chariot, especially contrived for it, and sometimes decorated with a figure of the human head. The trappings and harness were precisely like those of Egypt. At the front shoulder of the horse appears to have been, attached to the harness a contrivance answering the purposes of spurs in goading on the horses, similar to the spiked balls fastened to the trappings of the race horses of the Roman Corso. Several bands passed over the chest, and lapped over the shoulders of the horses, joining the ligaments connected with the pole or yoke. A remarkable band or thong, through the end of which passed a single rein is observable in the remains of the Assyrian monuments. Three horses are sometimes attached to these chariots, and it appears to have been indicative of superior rank, that a person was allowed to have two bulls delineated upon his standard. A great part of the strength of the Assyrian armies consisted in their chariots, which is frequently alluded to in the inspired page*. In all the sculptures yet brought to light the most have been represented as chariots of war and appear to have been managed either by two or three persons, generally the king accompanied by two attendants—the warrior and the charioteer—although we find in the sculptured record, the warrior, the shield bearer, and the charioteer. These chariots were most probably made of wood† or at least the greater portion was of that material—and although open behind, was closely paneled at the sides.—This, however, must be received as merely conjecture, since sculpture can scarcely be received as reliable evidence of the material composing the chariot. The pole was of a crooked form to accommodate it to a low hung body, and would require to be plated with iron to render it strong enough for war purposes. It was further supported by a forked rod attached to the front part of the chariot, which was also connected with the end of the pole by a singular contrivance. Its size precludes the idea of metal, or even of solid wood, and we can only conjecture that it was a light wooden frame work, covered with linen, or silk and intended as an ornament. It was elaborately painted or embroidered, and was generally divided into three compartments containing sacred emblems—sun, moon, seven stars and the horned cup. Although the yoke was for two horses, three were generally harnessed to the chariot. There is no indication of any traces, nor can it be ascertained from the sculptors how the third horse was attached. || It was by some conjectured that this third horse was to supply a draught horse in case one should be killed in the fight. No seats have ever yet been discovered in the sculptures, but the passengers have universally been represented in a standing posture.

At a later period of Assyrian history the chariot appears to have been modified both in form and size. The frame work for dividing the horses stretching from the chariot in front to the end of the pole, was supplanted by a thin rod, rope or leather strap knotted in the centre or near the end. The pole was not made so ornamental as formerly, and the chariot represented as drawn by two horses only and hung upon higher wheels, the wheels having invariably eight spokes and strengthened by four pieces of metal, which bound the felloes in strakes as we remember to have, in our youth, seen done with the common ox-cart wheel in this country. Among the Elamites tributaries to the Assyrians were chariots celebrated for carrying archers, and we may here observe that the chariot has always, among the ancients, been a distinguishing mark of advanced civilization. We find also in history, that the chariot of eight horses was thought to be a fit object for dedication to the supreme deity (Jovi) or the sun. This custom prevailed in Asia prior to the Persian domination as we learn from the second book of Kings, xxiii. 11, where Josiah is said to have taken the horses dedicated by the idolatrous kings of Judah to the sun, and burned the chariots with fire. This subject will be further considered in our next No. E. M. S.

*Chariot cities for the support of warriors fighting in chariots are named in the Bible (2 Chron. 1. 14. and 7. 6.) King Solomon had 1400 chariots; the Syrians 700, and the Philistines 30,000.

†A car from an Egyptian tomb, now preserved at Florence is composed of birch wood and iron, yet chariots of iron are mentioned in Judges 1. 19. and 4. 3. The chariots and horses of Naharaina in Mesopotamia are mentioned on an Egyptian monument at Karnak of the eighteenth dynasty; an officer of Thothmes Ist, "captured for his king twenty-one hands, a horse, and a chariot in the land of Naharaina."—*Birch's Memoirs on the Statistical Tables at Karnak*, p. 8. We find also mention of "thirty chariots worked with gold and silver, with pointed poles," &c.

—Nineveh and its remains, Vol. 2. p. p. 271—272.

(For Saladee's Magazine.)

RAMBLINGS.—NO. 9.

MR. SALADEE—*Dear Sir*:—After rustivating a month in our charming Buckeye Capital, and more especially so at this season of the year, it required no small effort on my part to bid adieu to home and friends, and also that favorite arm chair that occupies so prominent a place in the office of the Coach-Makers' Magazine.

My first stopping place was at Delaware, Ohio, a most beautiful place, and from what I saw, through the politeness of Mr. McElroy, carriage-maker and bow and felloe bender, visited nearly every part of the city, enterprize is the order of the day; manufacturers and merchants all engrossed with business, gave to the place an active and cheerful appearance. This city has schools of a high

order, which its citizens may well be proud of; they are well sustained, not only from within the place, but many of the scholars are from distant states.

My next stopping place was at Dayton, but having so recently visited that place, shall say but little about it. I called on Messrs. Cohan & Conway and found them more busily engaged than ever in furnishing carriages; I also called upon Messrs. Blanchard & Brown, benders and spoke turners, and was much pleased to hear that they had recently discovered a mode by which to prevent spokes from springing after being turned, a very important discovery, and one that will be very desirable in the manufacturing of wheels.

From this place I wended my way to Richmond, Ia., a clever little place, and like most of our western cities and towns all alive. Carriage making up with the times; called on our old and well tried friend, S. R. Lippincott, who is in the circle with a fair assortment of work ready for market, some with Sprout Springs, which have given a good report of themselves in that section of the country. I have it from Mr. Lippincott himself, that every sale he has made with the above springs attached, has given entire satisfaction. Mr. Hunt of the same place is doing a fair business, whose work looks well, and recommends itself. I visited them all and the result your subscription list will show.

Next to Indianapolis—by Indianians the supposed centre of the world—however that may be, there is room for great improvement in the manner of conducting hotels. The city is indeed very pleasant and beautifully arranged, presenting a very lively and business like appearance, caused in a great manner by the great amount of travel which must necessarily pass through it, being the terminus of some eight or ten rail roads. I was somewhat disappointed in not finding more manufacturing in the city, but succeeded in finding some three carriage shops and gave them all an official visit, quite satisfactory to myself, and I hope will prove advantageous to them. I cannot well pass this city by without suggesting to that class of men who pretend to accommodate travelers, that as cleanliness is a virtue, I much fear that there are but few virtuous hotel keepers in this iron bound city. I rather think better fare and more moderate charges would add much to the credit of the place among the traveling public.

From this city I took the cars for Madison, on the Ohio River. After stopping at the principal places on the road, in due season arrived at my place of destination, stopping at the Madison House—a paradise to any thing called a hotel at the last named place—where I very pleasantly spent the Sabbath in a quiet and orderly manner.

Madison has but one carriage factory, and that is conducted by my old friend and shop-mate, E. Green; together we spent years of happy boyhood, and are now with many of our old companions scattered far and wide, each of us now feeling the necessity of gathering for ourselves from the fruit of life's fair tree. Mr. G. is carefully attending to the wants of carriage consumers in the vicinity of Madison, and from what I could learn, to their entire satisfaction. His establishment patronized well the Magazine. He is about to introduce the Sprout Spring among his customers.

From here I took the mail boat for Louisville, Ky. Mr. Dexter having recently visited that city, I passed it and made New Albany, Ia. my next stopping point. Here, as elsewhere, I received a large number of subscribers, and after operating a day in this the largest city in the State, and a thorough go ahead place, I then took the cars for Terre Haute, via Greencastle; a very pleasant place, situated on the bank of the Wabash River; the land in this vicinity is said to be by many the best for farming in the country. After adding more to the number of my acquaintances, and also to our subscription list, I then started for Chicago, via Terre Haute and Alton Railroad, expecting to connect at Mattoon with the Illinois Central, but lo! what a disappointment; I was obliged to lay over at Mattoon for eleven hours, about all day, and was told that it was an every day occurrence, much to the annoyance of passengers. The secret, I believe, is this: that the company, or a portion of them own the town, and are thus taking the advantage of travelers to force them to lie over and spend a dollar for two meals in a most miserable and dreary prairie, where they are using all kinds of means to force a town into existence. Well, as "fortune favors the brave," we finally succeeded in getting off in a freight train—about one hundred passengers, men, women and children—not, however, without one of our passengers, a Buckeye at that, from Dayton, being relieved of a good gold watch, by some of the light fingered

gentry of the memorable prairie depot at Mattoon, Ill. After two hours ride we were again brought to a stand still at Urbana, where after stopping an hour and a half, and bearing with numerous insults from Railroad employees, I finally succeeded in reaching Chicago, and I rather think in future I shall take good care to avoid traveling on the Illinois Central Railroad.

But to Chicago. Much has been said of this mushroom, or as it is styled, "Garden City," and from the rapidity of its growth and rush of business, something new may be said of it daily. Chicago is a growing city, and from the appearance I should think the sidewalks grew faster than any thing else; it is not uncommon to see a guage of from one to five steps in one block, sometimes up and sometimes down; occasionally an inclined plain of from one to four feet. This will all be regulated in time, if they have time to do it; however, much depends upon that, as all are in a great hurry. It is as near as I can judge Young America let loose. Business of all kinds is brisk, and coach-making up with the times. There is quite a number of Repositories and Manufactories, and all seem to be doing a fair business. The streets are crowded with merry pedestrians, smoking hot politicians, burning with zeal for the welfare of the nation; lager beer and sour krout at a premium, and speculators by the gross or done up in a single package. Messrs. Ellithorpe, Kline & Bradley are finishing a very superior style of hack, which will favorably compare with any made at the East. They also furnish all kinds of carriages. From this establishment I obtained a club of eleven subscribers to the Magazine, also an order for springs; also from Mr. C. L. Ingersoll, who by the way is doing a fair business, and has a very desirable location; he owns the right of Rowley's Springs for this city, and is doing well in furnishing the spring and carriages finished with the spring attached.

From this place I wended my way up the lake as far as Milwaukee, Wis., another enterprising city, with only one carriage establishment, belonging to Messrs. Ogden & Smith, who are doing a very fine business, and who also done well by me, by taking a goodly number of Magazines, and also in giving an order for Sprout's Springs. From here I went to Racine, where I had the pleasure of making the acquaintance of Mr. E. P. Alverson, one of your fast friends, who by the way stands well up in the order of carriage-making. I take him to be a straight forward business man, doing a good fair trade. From this place to Burlington. Owing to shortness of time, I had but half an hour in this place, but used it with profit to myself and also to Mr. Brounsill, who readily subscribed for our Magazine. From Burlington to Rochester, in the old fashioned but sure way—by stage coach. Beautiful country along the Fox River, and enterprising farmers. Crops look well; particularly the wheat, indicating a plentiful harvest.

Rochester is a beautiful little town of about seven hundred inhabitants, situated on the Fox River. It may seem strange to some that a place of this size should have a carriage factory built of stone, and one hundred feet long, and a wing erecting of same size; but after seeing the adjoining country under cultivation by an enterprising class of society, reaping a rich reward from tilling the soil, we can easily conceive a market for the products of the above named factory of Messrs. Ela & Co., who are manufacturing a very fine style of work under the supervision of Mr. G. L. Valentine, formerly of Godwin's in New York city. At the above establishment our Magazine was no stranger, my visit being anticipated, and for which I was amply repaid, not only with a large number of subscribers, but in making the personal acquaintance of the firm, and also a number of their operators. Having here found the bottom of my carpet sack, I was obliged to return to this city for a supply, without calling on several towns that I had intended to visit, but will endeavor this coming fall to make a tour through central Wisconsin, returning by way of Mississippi River, should a kind Providence continue to smile on us as in the past.

Very respectfully yours,
Matteson House, Chicago, Ill.

A. T.

For Saladee's Magazine.

AXLETREES ONCE MORE.

BRO. EDITOR—Dear Sir:—I perceive that our friends "S. E. T." and "G. R. G." seem to differ a little in their opinions on the subject of setting carriage axles, as respects the rule applicable to the gather or forward set thereof. Now, this certainly is nothing very strange in our opinion, for there are but very few persons in

any business who agree in opinions on any given subject, and there are many learned doctors, even, who are found *honestly* and widely at variance in their conclusions. It is doubtless well that this is the case, and he who passes through life without profiting from this very variety in thought among different individuals, has lived but to very little purpose.

Now, for our present purpose, we shall suppose that our learned friend, Doctor "S. E. T." is living in and *practicing* also in the country, surrounded with all that is beautiful in the world of nature, and is quaffing at the fountain of health those enjoyments which contribute towards making life desirable and pleasant; but regardless for the moment of those charms by which he may be surrounded, he sets down at his desk to give us his ideas upon some *abstruse* subject—axletrees if you please—but not having taken his degrees in nor graduated from our *Alma Mater*; but having received *all* his teachings in the school of experiment,—and that school too located amidst a rural population—it is very natural that his theories should be biased by his fellow schoolmates' interchange of ideas; but on the contrary our very nice friend Doctor "G. R. G." dwells in and inhales the dusty atmosphere of a man made city, and moves daily among those whom we are accustomed to denominate refined, or if you please in the language of the classics, describe as *cultus*. But looking through an unwiped pair of spectacles he cannot be expected to see as Doctor "S. E. T." does, so in consequence he draws his conclusions under different circumstances, with different results.

But leaving fancies, we will come to the supposed facts. In the earlier days of carriage making, axletrees of wood were generally used, and in these wood axletrees a pin or linch-pin was inserted. It would soon be discovered that as the axletree was made straight in the arm, that the roughness of the roads would cause the linch-pin to break, and thereby offer a possibility of the wheel's coming off, but in order to lessen the danger under such circumstances, it was found necessary to give all axletrees a little forward gather, and by so doing insure apparent safety against accident by causing the wheel to hug the shoulder of the axletree. No modern carriage-builder with the least show of reason can dispute this fact—that a carriage must draw the harder the more gather we give our axletrees—but then, we are compelled sometimes to sacrifice apparent advantages, in order if possible, to avoid a greater evil.

None of us would now for a moment think of using any other than iron axles in the finer description of carriages, and as our wheels are either fastened upon the axletree by a nut-washer, or several nuts at the back of the hub, there is now, not much danger to be apprehended through fear of a wheel's slipping off from its place, and consequently we have no necessity for a gather in the axletree at all; in fact it is necessary to have them what we technically term straight, in order to have the front and back wheels face, which is the desire of every workman of taste at the present day, and there is no doubt in our mind, but that our wagons and carriages run all the more easily on this very account. We are ready to concede that our rural friend is in the main correct, in his theories, if they are confined to wooden axletrees, but not otherwise—and our opposite friend is also not far from right in his positions when applied to iron axles, so we conclude that "both are right and both are wrong."

E. M. S.

New York, May 12, 1856.

Painting Department.

PAINTING—BY A PAINTER.—NO. 6.

Among every ten painters it is seldom that more than one is considered a superior "striper." Many and silly are the reasons assigned for this; some will say they have, nor never had any taste for it; others say they are too nervous; and unable to hold a pencil steady enough to draw a straight line. But, to a person who really has any desire to be a proficient at this particular branch, such reasons as these should form no obstacle. As with everything else, patience and perseverance is all that is required. For want of a good supply of these two articles, many a good "striper" has been "nipped in the bud." Because none of the first half hours' attempts succeed to your satisfaction, do not throw down your pencil and

say with "Marmion" "*I can't*," but try it again; clean out your pencil; mix some fresh color and "go in" again. It requires no more steadiness of nerve than the holding of a pen, for the finger and thumb is all that is used, while the remainder of the hand is used to rest on and steady them.

Minute and particular instructions as to "striping" would occupy more space than could be afforded in these pages, and even then the difficulty of explaining theoretically in a comprehensive manner, would enable but few to receive any benefit therefrom.

COLORS.

The contrasts of various colors is what forms the principal beauty of "striping," and the bad taste often displayed is so common, that it is almost useless to comment. For instance, we often see a job painted green or olive striped off with a heavy vermilion line, and all judges will agree with me, that vermilion should only be used on work painted black or dark brown. And again, on this last named color, some use white striping, than which no other color produces such poor contrast. In my estimation, those colors that contrast well would thus be classified: On work painted claret or blue, striped with a bright green, (two parts dry white lead and one part chrome green). For work painted green and olives, striped with a light blue, (two parts ultra marine and one part white lead) or a light yellow or orange; the last named only on light work. On heavy work it is customary to stripe with a white line, and it should always be very close to the mouldings, which answers the purpose for which it is intended, viz: to enable the eye to follow more easily the outline and sweep of the job. Striping on the mouldings exhibits very bad taste, and should never be done. A body will show to more advantage without any striping on it, than finished in this manner.

PENCILS.

The selection of a good pencil is a matter of some difficulty to many, and you may purchase a hundred before stumbling on a really good one. I should recommend that every one make their own, that is, those used for fine lining. A very little practice will enable any one to do so, and then the difficulty would be avoided of the hair being too short or too long. Procure a few feathers (tail) of a pigeon or other large bird, and with a needle remove the pith from the barrel of the quill, take a small quantity of hair and after tying it firmly insert into the quill, and you will after a few attempts be quite a proficient. Some make their pencils by tying the hair around the end of a sharp pointed stick, but the liability of the thread to slip over the point and twist the hair, is an objection to this plan. Some give sable and others camel hair the preference for pencils, but sable is most undoubtedly the best, as a good sable pencil will outlast four camel hair ones; being much stiffer than the camel hair they carry the color more evenly and and with more precision. A camel hair pencil, however, answers very well on common work, or on running parts where a very fine line is not necessary; but for fancy corner pieces, &c., in the pannels of a body where a very fine delicate line is required, a sable pencil is almost indispensable. A camel hair pencil will take up enough color to almost bend it double, while a sable refuses to take more than a certain quantity. Often during damp weather, or from not being properly laid away, they will twist and become crooked, which may easily be remedied by laying them on a piece of hot iron, (as hot as the hand can bear) and bearing hard, smooth them straight; this will be found to be an effectual remedy for either camel or sable hair. It is not the using of pencils that destroy them so much, as not being properly put away after using them. It is customary for many to keep a pan of oil, and after using a pencil dip it in the oil and carelessly lay it on the shelf, and there leave it until again wanted. Some with grease plaster them up against a window where the sun's heat and the moisture that collects on the glass does not tend to improve them. Procure a piece of glass and a piece of tallow, and after having done using your pencils, lay them out straight, well greased, passing the finger moderately hard over them, which in a manner fastens them to the glass; lay them away where the dust will not settle on them; and in a month from then your pencils will be just as ready for use as when laid away. It is an excellent plan to adopt with new pencils that you do not expect to use for six months, as by this means the hair becomes deprived of any tendency to kink and twist. For the heavy pencils, such as are used for blacking off mouldings, &c., camel hair is generally

used. When laying them away, first clean them with turpentine, and dip them in a little sweet oil, which can more readily be removed when again wanted, than when tallow is used.

Japan is used as a drier by many painters in the mixing of striping colors, but sugar of lead is far superior. Besides the advantage of drying quicker, the muddy looks often observed of striping is obviated. My plan is to take sufficient color to stripe a job, and add a small piece of sugar of lead the size of a pea, mixing entirely with raw oil, unless mixing vermillion, when I use boiled oil, without the addition of the sugar of lead, as the drying nature of the vermillion is sufficient. Colors mixed in this manner dry in from four to six hours, and the ease and facility with which the striping leaves the pencil more than compensates for the time it takes to dry.

Every painter should have a small stone or palette board on which to mix his striping, to be kept for this use alone. As the large stone is seldom if ever clean enough for this purpose, a good and at the same time cheap one can be made as follows: Take a piece of board 8 by 10 inches, or larger, of at least an inch thickness, spread a mixture (quite thick) of white lead and japan on the surface, and lay a pane of window glass on it; lay it in the sun for a few days to harden and you will have as good a stone as if it were an imported Italian marble stone. Particular attention should be paid to the keeping of it always clean.

For the neat execution of the designs following this, No.'s 1, 2 and 3, a peculiar kind of pencil is necessary, and as the procuring of good ones from the stores is almost impossible, I furnish my plan for making them. Procure a large red sable pencil, the hair of which should be at least one inch in length; take from it about twenty hairs, and before tying them together, endeavor to get a fine point, ending with one or two hairs; insert them in the quill, to which a handle somewhat thicker than those of a striping pencil is necessary, to enable you to have more command of it with the finger. Four, and sometimes six are used, but you should have one for every separate color, which saves time in cleaning them out, besides, the advantage of having each color show distinctly. Some in putting on these corners and scrolls use but one color, but the finish is not so pleasing and tasty. I generally use light green, edging with white for No.'s 1, 2 and 3; for No. 4 orange is most suitable, edged with vermillion and white; (the tips of the leaves with white.)

B. Mc.

TRIMMING DEPARTMENT

BY G. D. M'LANE, NEW YORK.



Fig. 20.

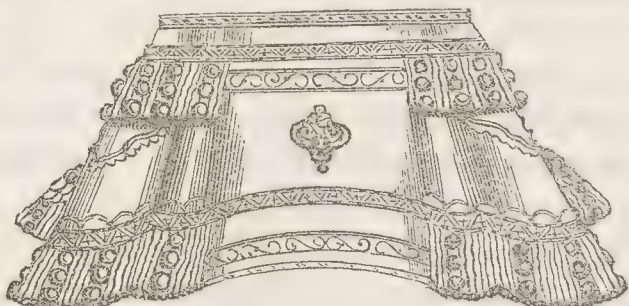


Fig. 21.

The annexed engravings represent a very fashionable and most elaborately finished "Hammer Cloth Seat." Fig. 20 is a view of the corner, and Fig. 21 a side view. These seats are made of a variety of cloth; some drab, some blue, and others again black, with yellow silk edged lace, though the blue is considered by our foreign neighbors as the most appropriate color, while the New-Yorkers are in favor of something more gay.

For the Coach-Makers' Magazine.

ON TRIMMING.

MR. EDITOR:—I have just perused the article under this head on page 61 of the last issue of the Magazine, from my worthy brother in the craft, Mr. "M. G. H.," and did so with a high degree of pleasure, and considerable profit. But as all doctors disagree on minor points of their respective theories, I must likewise beg your indulgence to take a few exceptions to my good brother "H." First, he remarks, that one of the objectionable features in my contributions, is that of a complicate sketch of a whole job presenting a variety of finishes at one glance. Second, that styles

universally known need no illustration, and third, that new styles, from the peculiar nature of body trimming, are not only hard to draft, but harder to understand.

First, permit me to remark, that my contributions were designed not as a treatise on trimming, by which to enable the apprentice and others unskilled in the art, to pattern after, but for the accomplished workman, and for whom I think a complicate sketch, if well executed, is all sufficient. Again, I am reminded that styles universally known require no illustration.—Granted. But then I do not know of even one good style that is universally known, neither does Bro. "H.," for he admits that styles are not the same in any two shops, and adds, much less in any two states or sections of the country; hence what is new in one portion is old in another. I therefore contend that there is no one style familiarly known all over the country, and therefore any style that is familiar in one section of country needs illustration for the benefit of those in that portion where it is new.

And again; my Bro. takes it upon himself to say that new styles are difficult to draft and still more perplexing to understand. Surely, this does not argue any thing very flattering for him as a scientific Trimmer, for he nor no one else who is master of his profession as a coach-trimmer requires any thing more than a rough sketch to impress upon his understanding almost instantly, the idea intended to be conveyed, and when that is once conceived, I fail to observe the slightest degree of propriety in any good workman to stand, scratch his head, and wonder how this or that is made, for he will know.

Drafting, it is true, is a difficult task in our department, but still it can be done, and well done; yet I would not be understood as claiming perfection for my feeble efforts as seen in the Magazine from time to time. I expect to see better things as our worthy advocate "The Coach-Makers' Magazine" advances, from the willing hands and ready pens of such of the craft as my Bro. "H." and others. You have well said my dear Bro., that there is a wide field open for cultivation in this direction, and if all those who are capable of so doing would but devote a few leisure hours in furnishing contributions of various kinds for this journal, they would not only be improving their own mind and cultivate a deeper love for their occupation, but would likewise be aiding to impart an interest to our department in the Magazine, that would do honor to its columns, and benefit our class at large.

I am happy to see that Bro. "H." has so courteously volunteered his valuable services in this department, and I trust with his co-operation we may be instrumental in giving it a degree of interest that will prompt others to lend their aid. And now, Bro. "H.," allow me to suggest that you commence a series of articles on trimming, with illustrations, after the plan you propose, which is certainly very desirable; no matter how rough your sketches may be, our friend the Editor will have them drawn to the proper scale, and in the right style, and I will continue my illustrations as heretofore, only giving a more intelligible explanation where I may think it called for. However, this is suggestion, merely, and prompted from the purest motives and the most friendly feelings.

GEO. D. M'LANE.

New York, June 1856.

For Saladee's Magazine.



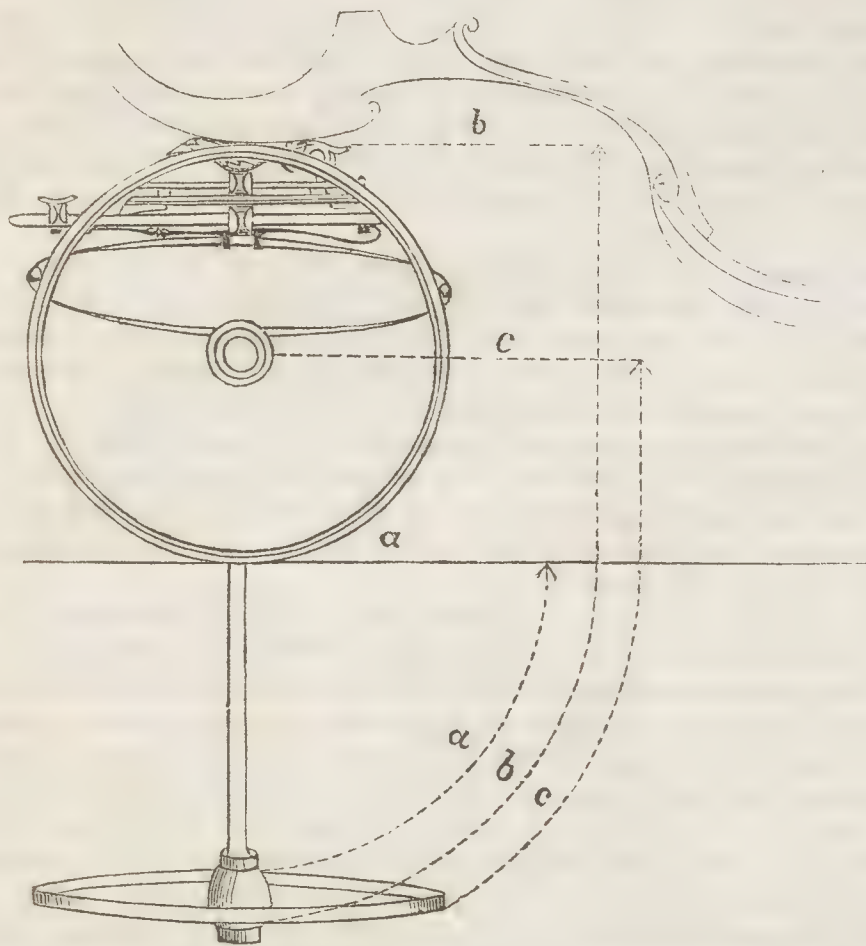
MR. SALADEE:—Enclosed I forward you a design for an opera board, handsomely carved. The shape is now much used, and the

carved vine gives it a very rich and elegant appearance. I have often met with many of our young men who were anxious to improve themselves in carving, and have frequently heard them say that if they could only have designs to imitate, they could no doubt soon become accomplished carvers. T.

Chicago, June 1856.

For Saladee's Magazine.

SQUARE RULE—NO. 3.



I have often been solicited by many of my old acquaintances, and not unfrequently by many new made ones, to tell them what rule I made use of to obtain the correct length of a perch, or to ascertain the exact position of the front axle under a no perch carriage. Those of our readers who received our last year's numbers doubtless well recollect, and those that did not, we refer them to page 49 of Vol. 1st, to the contribution of Mr. Flowers, whose articles appeared in the Magazine, and which done him great credit, and were received and highly appreciated by many. It is not my purpose to offer my own practical observations as superior to all others, but merely to give them for what they are worth, knowing them to have been of great utility to myself. Mr. Flowers showed us the circle of the wheel on the ground, and also the difference between a straight wheel and a dished one. It will be seen that I still hold on to my original body, using only that portion of it which is required to show the manner of turning the wheel, leaving it as open as possible to avoid conflicting lines. I have made the wheel 4 ft. 2 inches high, and the track 5 feet: From parallel line A to circle line A shows just half of the width of the track. Circle line A shows the track of the wheel as it passes under the body; B shows the circle of the top of the wheel from the outside of the felly. C shows the circle of the wheel parallel with the hub.

The above arrangement being very simple, requires but a few moments to ascertain where the wheel, irrespective of size, dish or however much or little it may be contracted, will pass under the body. A. T.

CHAPMAN'S ELASTIC SHAFT FASTENER.

It is now just one year since I commenced manufacturing, and offered to the public my improvement in shaft coupling, and thousands are now in daily use; each sett giving entire satisfaction; and I do boldly assert that there is not a solitary individual who is using my invention, (properly and fairly applied) but will cheerfully give testimony to the fact, that it gives him perfect satisfaction in its practical operation.

Its utility being thus fully recognized, the next point is to ascertain—is there economy to the carriage manufacturer in its application to new work? I unhesitatingly say there is; for no respectable carriage maker who tries to give his customer good honest work, but knows that the shaft clips or jacks require far more care, labor and attention to make a close fitting job and give safety, than any other part of the vehicle, of comparative size, and he equally well knows, that after all, their labor, trouble and expense, by running a carriage a very short time, this joint becomes loose from wear and is noisy and unsafe, no matter how good the job when new.

A good and safe shaft clip, for using my patent fastener, which will always run quietly, and secure the bolt against loss; can be made in about one half the time, and without that trouble and careful supervision heretofore required, and with a permanent result, satisfactory to the customer and manufacturer.

In corroboration of this fact, I have the assertion of many of the best and most extensively known carriage makers in Boston, Hartford, New York City, Philadelphia, Baltimore, Pittsburgh, Louisville, Cincinnati, &c., among whom are G. W. Watson, Brewster & Lawrence, C. West, J. & B. Bruce & Co., G. C. Miller & Sons, John W. Gosling, &c. &c., consequently it would be used on new work without additional expense to the carriage.

Many manufacturers, and among them several of the above named, having adopted my improvement in all their work, have offered me contracts, wherein they would obligate themselves to use my fastener on every thing they manufacture on condition I would make them a small discount from my wholesale price.

No carriage-maker should hesitate to test the merits of my invention. He will certainly find it to his interest to have the article on hand and to use it. It does sell and it does please. I am constantly receiving remittances of my retail price, from persons having heard of it, requesting a single sett forwarded by mail to points distant, where none have yet been introduced.

Dealers in Carriage Hardware will find it "a good card" as to them I make a liberal discount, and many who have it, find it a staple article. WM. S. CHAPMAN.

S. E. corner Third and Vine Sts., over carriage rooms of J. & B. Bruce & Co. Cincinnati. June 12, 1856.

Editorial Chip Basket.

BY E. M. S.

This fellow picks up chips, as pigeons peas.—SHAKSPEARE IMPROVED.

THE NUMBER OF AMERICAN CARRIAGE-MAKERS.—It is said that there are over twenty thousand carriage-makers in business on their own account in this Union. Now, if we allow on an average, five men to each shop, it will make the number amount to one hundred thousand who are working at the business, and promoting thereby the comforts of mankind. In the language of the day, "are we not some?"

WHO WILL RESPOND?—In a late No. of this Mag., we sought to obtain the date when carriages were first introduced into the United States, but up to this time no one has responded. Among the numerous and intelligent body of Coach-makers in America is there not one individual who *can* and *will* satisfy our reasonable curiosity? Had this question been asked of some other country, *we know* that we should not have asked in vain. Is there not *amor patriæ* enough in our bosoms left to elicit attention? Who will respond and respond at once? Don't all speak at one time, it might surprise us.

OMNIBUSES IN LIVERPOOL.—We learn from our file of late English papers, that the success of the omnibus companies in London and Paris has led to the formation of an omnibus company in Liverpool, who have issued a prospectus announcing that the capital will consist of 1000 shares of £10 each, and conducted on the Parisian plan of correspondence.

IRON—Its annual production throughout the world is estimated at 6,000,000 tons. Of this amount the United States produces 750,000; Great Britain, 3,000,000; France, 750,000, or about the same as the United States; Persia, 300,000; Austria, 250,000; Belgium, 200,000; Prussia, 200,000; Sweden, 150,000; the lesser German states, 100,000; and other countries, 300,000.

TAXING CARRIAGES IN FRANCE.—It appears in late news from France, that some ambitious senator is endeavoring to have a law passed for taxing the carriages used by private citizens, yet it is hoped that it will not pass the Senate. They can only (for some unexplained reason) veto the bill upon the ground that it is unconstitutional; but on the other hand, if they choose to call it unconstitutional there is no appeal from their verdict. Many of the senators who were stimulated—in fact almost ordered—by government to set up their carriages in order to give employment to the working classes, feel deeply aggrieved that they are now to be called upon to suffer a novel description of taxation.

"CABBY" ALARMED.—The London Hackney-carriage proprietors have lately held a meeting for the purpose of considering the expediency of starting one-horse metropolitan stage-carriages. From the statements of the speakers we learn that the new French Omnibus Company, heretofore noticed in our Magazine, has very sensibly affected the cab trade, therefore the cab proprietors had drawn up a plan, to which they had obtained the sanction of the city authorities for starting 200 or 300 one-horse stage-carriages, to ply at

the same fares as the omnibusses; and to have not less than twenty on each road. A resolution to carry out this new project was unanimously adopted.

JOHN BULL EXCITED.—Incredible as it may appear, an Englishman at our elbow says he one day saw a great crowd in the streets of London, surrounding what he supposed to be a broken down carriage, and with the curiosity inherent in human nature, he drew near the spot in order to see for himself what was the matter. On reaching the place he discovered that a crowd of cockneys surrounding a very light and beautifully made American trotting buggy, were wondering among themselves how a wagon made so light could be expected to perform any service to its owner, and then Johnny's eyes stood "straight out" when he looked at the extremely light spokes in the wheels, and asked "what might the timber be in them?" This was a question which elicited an animated discussion, some supposing they were made from one kind of wood, and some from another; but in the end it was conceded almost unanimously, that the spokes in that buggy were made of *whalebone*! Now, Bro. Editor, you must at least admit that our trans-atlantic neighbors are a little ahead of us in credulity, if in nothing else.

WHEEL MANUFACTURING ESTABLISHMENT.—A few days since we took the opportunity to make a visit to the flourishing little village of Elizabethport, "down in the Jerseys," making a call upon our fellow craftsmen Messrs. Whittemore & Jones. The latter gentleman "did the agreeable" on that occasion, taking us over their premises, shewing us their facilities for making carriage and wagon wheels, stock, &c. We have heretofore flattered ourself that we had "seen some things done as well as others," but the perfection of the performances by machinery, in that establishment astonished even our Yankee curiosity. Heretofore we have entertained a prejudice against having our wheels "made out," but when we inspected the stock of this firm and saw for ourself the faithful manner in which the spokes were being driven into the hubs, all our former prejudices vanished, and now we would unhesitatingly recommend every carriage maker in want of really good wheels, to give this firm their custom. We are sure that the products of this factory are about right.

THE "JAUNTING CAR"—THE "HANSOM."—Of all the *queer* things in that *queer* place, Ireland, the *queerest* must surely be the "jaunting car," for there is scarcely one traveler who visits the land of potatoes, who neglects to notice it in his letters home. Hear what one of our citizens says of it:

"Our vehicle was a curious thing; like most that we saw, and called a "jaunting car." It was drawn by one horse. There were two seats, back to back; but, instead of sitting front-wise we sat side-wise to the horse, so that if you sat with your back to the seat, in a natural position, your face would look at the rows of houses, and your friend would be looking at the opposite row. The driver has a little seat in front, but generally occupies one of the side seats with you, since they will hold two or three persons on a seat. The seats are entirely above the wheels, and the springs are queer looking affairs. They have no covering, and are, therefore, only fit for open-air riding. They are certainly very comfortable, and seem to be in universal use; but I felt funny enough dashing through the streets of Dublin, amid all varieties of vehicles, particularly donkey carts"

Having reached England our traveler writes home to his friends, that—

"On arriving at Birmingham we were struck with wonder at the enormous railroad depot, made of iron and glass; about 275 feet span of arches, and 825 feet long. The conveniences at these railroad depots are quite superior to ours. You arrive in a cab, (four of us, with as many trunks, for from 25 to 50 cents,) a porter is at

hand, who takes immediate charge of your "luggage," as it is here called. He takes it and you to a cab, without charge or confusion, for which service he is not allowed to receive any pay: the reception of a penny in that way would insure his discharge on some of the lines. We found them very strict in Ireland. The "luggage" is all put on the tops of the carriages instead of a separate baggage car, as with us. A vehicle very much in use in this place and Manchester is called a "hansom." It is on two wheels, and very low, with a cover reaching well over, like a doctor's "gig." Designed for two, you and your friend enter, and a folding door closes in front. The driver's seat is behind; the reins are drawn over the top, and you see no more of your driver till the end of your route. Cab hire is very cheap. Written in bold letters on each cab, or "hansom," are the words, "9d. for one or two persons, with reasonable luggage, for one mile;" only 18 cents of our money."

Contributors to this Number.

"SQUARE RULE.—No. 3,"	Abr'm Terrill, Ohio.
"AXLETREES ONCE MORE,"	E. M. Stratton, N. Y.
"EDITORIAL CHIP BASKET,"	" "
"HISTORY OF CARRIAGES AND CARRIAGE-MAKING,"	" "
"LIGHT FOUR PASSENGER ROCKAWAY,"	A. A. Newton, N. Y.
"MOLTON'S SIX PASSENGER ROCKAWAY,"	R. Molton & Bro., Ill.
"THE FRENCH BAROUCHE,"	Lawrence & Bradley, Conn.
"NEW YORK SHIFTING SEAT BUGGY,"	Geo. Stevens, N. Y.
"OUR THREE WHEELED PHAETON,"	The Editor.
"VERLEGERS' PATENT COUPLING,"	" "
"PAINTING BY A PAINTER—No. 6,"	B. McCracken, Mo.
"TRIMMING DEPARTMENT,"	G. D. McLane, N. Y.
"ON TRIMMING,"	" "

ANSWER TO CORRESPONDENTS.

A. S. E. & Co., of Mass.—The Bending Machine illustrated in our advertising department is acknowledged by those who are using it, as far superior to any other now in use, and if you wish to get a first rate article of that kind, you cannot do better than to purchase this one.

R. N., of N. Y.—We do not know of a better opening for a man possessing the capital you have, than Elmira, N. Y. The stand now for sale, (and illustrated in the last No. of the Magazine) is certainly a very desirable one. We know of none more so.

C. W. S., of C. W.—We have often heard of vehicles being so constructed as to be converted into a sleigh, or to run on wheels, with a few minutes work, but it does seem to us where they have any sleighing at all, such vehicle is uncalled for, and where they have but little snow, the expense of such a fixture would not be justifiable.

P. P. R., of Wis.—If you will refer to the April No. of the Magazine, Vol. 2, you will find the information you require.

A. T., of Mass.—We are of the opinion that the cylindrical form of axle will run best, though there are many of our brother mechanics that differ widely with us upon that subject. At some future time we shall notice the different forms of axles more in detail.

B. S. & Co., of Ia.—We never heard of the kind of Japan you refer to.

S. R. N., of Ia.—R. T. Leech, of Pittsburgh, Pa., has purchased the old leather stand of H. Stemple, and is conducting the manufacture of every description of Patent and Enameled Leather. You will therefore address Mr. Leech for the information you require.

E. S. S.—Your sketch of Harse is received. We illustrated the same thing in the Coach-Makers' Guide in 1854.

W. W. W., of Ohio.—Your mode of attaching shifting tops to buggies is new, and possesses sufficient novelty to justify your making application for a patent. We are much pleased with the simplicity of the arrangement, and think it will answer an excellent purpose.

B. A., of Mich.—Mr. Efner, of Ann Harbor city was never appointed as agent for us.

S. W. D., of Ala.—The Hub Boring Machine of Silver, Felch & Dole is in common use in this part of the country, and is universally admitted to be the best now in use. We cannot say what the transportation of one will cost you.

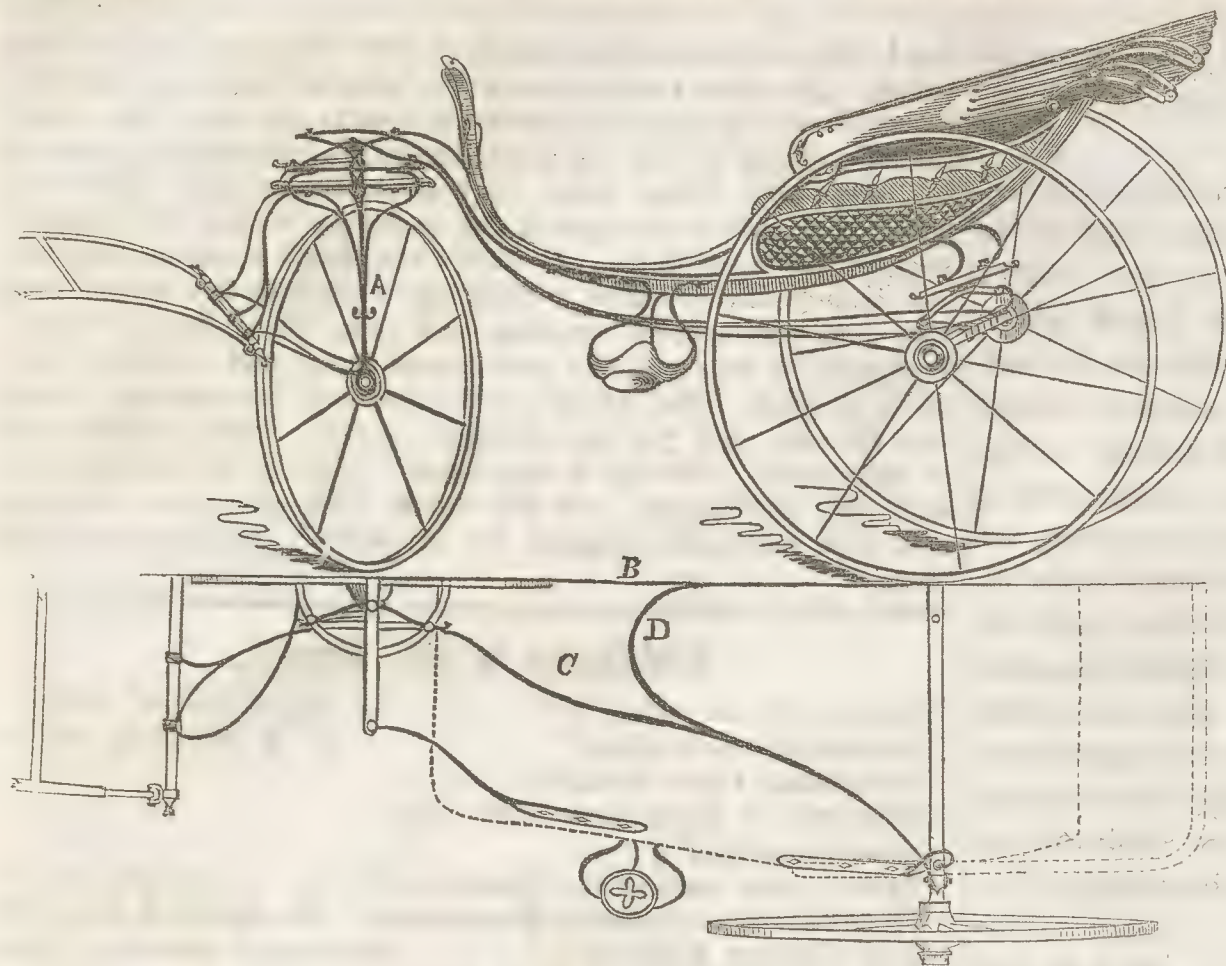
C. C., of N. Y.—Your communication on pine pannels for carriage bodies is very much out of joint; we cannot make sense of it for the reason of its lack of intelligible composition, therefore we cannot publish it.

S. & C., of Ill.—Mr. Flanders, of South Royalton, has patented about the same kind of seat as the one represented in your drawings; but we do not think that it possesses a sufficient degree of utility to justify any one to go to so much trouble and expense as to procure a patent, for scarcely any coach-maker would notice it.

A. A. M., of Pa.—Some weeks ago we saw an old temperance lecturer who was on his way to Washington for the purpose of making application for a patent on a Spring Buggy, very much the same kind of one you inquire for, but it was rather more on the buck-board principle. Should he succeed, we will hear from him hereafter.

—, of Chicago, Ill.—Your sundry drawings are received, and we are much pleased with the same. Hope you may continue such favors.

M. P. & Co., of Ia.—Should you see the "Patent Buggy" of Mr. Winans, of Baltimore, you would be highly pleased with the same. There can be no doubt as to its durability, and if Mr. W. manufactures them, which he now proposes to do, they will be superb articles, such as you can recommend to your customers with entire confidence, as to its motion. No spring can be made to ride easier, and furthermore it is never subject to rattle, a thing so common in all ordinary buggies.



OUR "THREE WHEELED PHÆTON."

The annexed engraving gives a correct illustration of our "Three Wheeled Phæton as it *now* appears." Our leading article in the editor's table of this No., will explain the cause of the alteration from the illustration given in the Feb. No. of the Magazine, to the one given above.

The front wheel has a revolving axle, which works in brass boxes, clipped on each end, and in place of having the spring in front to bear on this axle, as shown in the previous illustration, we have the brace A to extend down and cause it to permanently connect with the brass boxes in which the axle revolves, and on the top horizontal fourth wheel (commonly known as the fifth wheel) we have half elliptic on which the ends of the front loops rest. The two hind wheels are connected to the front, *independent* of the body, by means of three iron stays. The half top view annexed to the side elevation will explain the manner in which these stays are applied. B represents the centre perch, C the outer, and D a branch of C connected to B, the front extremities of which run up and fasten on the horizontal fourth wheel, and thereby permanently connecting the three wheels together.

It will be observed that the manner in which the body is suspended upon the carriage is such, that the principal burden is thrown upon the two wheels in the rear of the third wheel; thus releasing the latter of about one-third the weight it would otherwise have to sustain, and thereby secure the vehicle against every possibility of upsetting; (except, indeed, one of the hind wheels be elevated to such an extent as to cause the carriage to lose its balance.)

The body behind rests on a spring bar, which latter is supported on a half elliptic spring, held by two iron jacks parallel with the axle. Our wheel in front is 32 inches, and the ones in the rear 42 inches.

Finding that our improvement in three-wheeled carriages for pleasure, works much better than we had any conception of, we are induced to build another, in which we shall introduce other features that will still further improve it, and so much so indeed, that we shall claim for it "Perfection," and likewise *practical utility*. We will illustrate more extensively and intelligibly as we progress therewith.

SOMETHING NICE.—The other day while sitting in our sanctum, we chanced to see a very beautiful extension calash passing along on the street and stopping at the Neil House. It having the appearance of something nice, we very naturally dropped our pen and stepped across the way to see it. On doing so we found it was built exactly after the design of our extension phaeton given in the Aug. No. of the Magazine (1855). In our recent travels we have seen a great number of new carriages built after this design, but never one on which the work was so beautifully executed and so neatly finished. On a closer examination, we found it was from the factory of JOHN W. GOSLING, Cincinnati, Ohio. On seeing this, we ceased to wonder that it was something nice; for who ever saw any thing else from *that* shop?

WANTED.—H. J. Taylor, of Fredonia, Ohio, is in want of a journeyman carriage-maker; one who can do any kind of work in the wood department. Address soon.

EDITOR'S TABLE.

JULY,

1856.

THE EDITOR ON THREE WHEELS.

After considerable delay we are finally riding on three wheels, or in other words are using our "Three Wheeled Phæton," and as it has proven a very desirable pleasure vehicle, and less objectionable than we had previously anticipated, we have concluded that a brief history of our experiments in the construction of the same might be somewhat interesting to our readers.

As we remarked in the Feb. No. of the Magazine, the idea of a three wheeled pleasure vehicle suggested itself to us on seeing a "Steam Fire Engine" which is constructed upon three wheels, and we immediately conceived the plan illustrated in Feb. last. In April we ordered one built according to the plan, and when the iron work to the same was completed, and the whole thing put together, we observed, to our mortification and utter astonishment, that the *principle* of our plan was all *wrong*, and that the confounded thing would hardly stand alone.

Now, had it not been that we previously expressed our entire confidence in its operation, and so loudly and flatly contradicted certain of our friends who hinted that it *might not* work as we anticipated, we would have dropped the thing at this discouraging point with disgust, and perhaps never after thought of *three wheels* again. But there we was, in a "bad fix;" for if we abandoned the project, every one to whom we had been conversing with respect to it, would very knowingly have told us—"Why, sir, we knew it would'n't work;" or some, perhaps, would have found much that was worth *laughing* at, and should we continue to experiment and *fail*, it would make a bad thing worse, and add still more to our already deep *mortification*. But on recollecting that to retreat is frequently attended with worse results than an open *defeat*, we resolved to face the difficulties and attempt to overcome them.

On examination of the carriage in its present position, we found that there was a weakness about the connection of the front wheel to the body, and the latter to the axle, that caused the third wheel

to have a lateral motion at the top, so much so, that the wheel would lean either to the right or left sufficiently far to be crushed to the ground when the weight it was intended to carry would come to bear upon it. This imperfection was caused in part by the misapplication of the springs to the revolving axle passing through the third wheel, and in part by the misapplication of the springs to the body and hind axle. The springs to the front wheel, one at each end of the hub, would permit it to lean to any degree, until one of them would be closed, while the other would be strained open, as we found by taking the wheel at the top, and giving it lateral motion, that the springs were operated upon in the manner above described. This, of course, suggested the propriety of abandoning those springs entirely, and leave the braces which support the "fifth-wheel" to extend down to the axle and permanently connect thereto. But then as the front wheel and its connections was attached to the *body* by means of the loops, and the body being supported upon a *spring* connection, it was found that there was about as much of the lateral motion to the top of the front wheel as before. How this was to be obviated, cost us a great amount of experimenting, when after a time we concluded to throw the present springs away entirely, and connect the front wheel with the two hind ones, *independent* of the body, and which we effected by a perch connected to the centre of the hind axle and extended forward and connected with the "fifth wheel," and which centre perch was accompanied by two others starting from the shoulders of the hind axle and running up on the "fifth wheel" in like manner, and the three stays or perches were firmly connected together by a brace, (as can be seen in our illustration). We then applied a half spring hung on jacks for the body to rest on behind, and a very light "half elliptic" on the "fifth wheel" in front, and upon which the body was suspended. One thing that troubled us more than any other while contriving this vehicle was the idea that when a person would attempt to get in or out of it, and would throw his whole weight upon the step, it would lean so much as to make it very objectionable, for the reason that the front of the body was supported on but *one* wheel.

Finally it was announced that the workmen were ready again to put the carriage together. If this plan failed, thought we, there would be little hope of success. It was set up, and our disappointment was greater than before, for our new plan now proved as far *superior* to what we expected, as the former one did *inferior*. The front wheel was steady, the carriage was perfectly staunch, and in place of the drawing the carriage to one side when getting on the step, we found that we could stand and vibrate on the same and it would not give *half* as much as does the ordinary carriage under the same pressure. But lest there might be some alteration necessary after it was finished up, we run it out as it came from the hands of the ironers, when we were satisfied we had made it a most pleasant and convenient carriage.

It is finished, and we are running it, to the astonishment of our friends and the citizens generally; and all who ride in it seem to be highly pleased with its operation. The great beauty is in getting in and out. No matter in what position you stop, there is no front wheel in the way, and as for turning nothing on *wheels* can surpass it. It runs much lighter, weighs less, is more simple in construction, and strains the carriage less than any four wheeled vehicle of the same denomination, and as to upsetting it there is not one half of the danger on any kind of road there is in a four wheeled concern, as *that* we have tested thoroughly.

Those of our readers who may visit our place of residence on

their route East or West, can have the pleasure of taking a ride with the editor on three wheels, if they will but do him the honor to call upon him.

VERLEGER'S CARRIAGE COUPLING — PATENTED FEB. 3, 1852.

There is no coupling now in the field that has created so much inquiry among the craft as the one above named, and notwithstanding our illustration of this improvement in the May No. of the Magazine, we are nevertheless receiving inquiries respecting it by almost every mail. The majority of our correspondents seem not to understand the construction of this coupling as represented by Fig's 1 and 2, as given in the May No.; to which we reply that the engravings represented by those figures in that No. were intended merely to represent the original design or construction of this invention. After it was invented and brought to a practical test by the inventor, (Mr. Verleger) he very naturally perceived that its complication was a great objection to the application, and moreover, that the entire arrangement (save the *two cross reaches or perches*) was entirely superfluous; he therefore left off the unnecessary parts, and confined himself exclusively to the two cross reaches, which at once made his coupling the most simple construction imaginable, and likewise one of the most desirable and permanent gearing for *short turning* now in use.

For the purpose of more clearly representing its present form of construction and mode of operation, we give below the figures which will serve as a correct illustration.

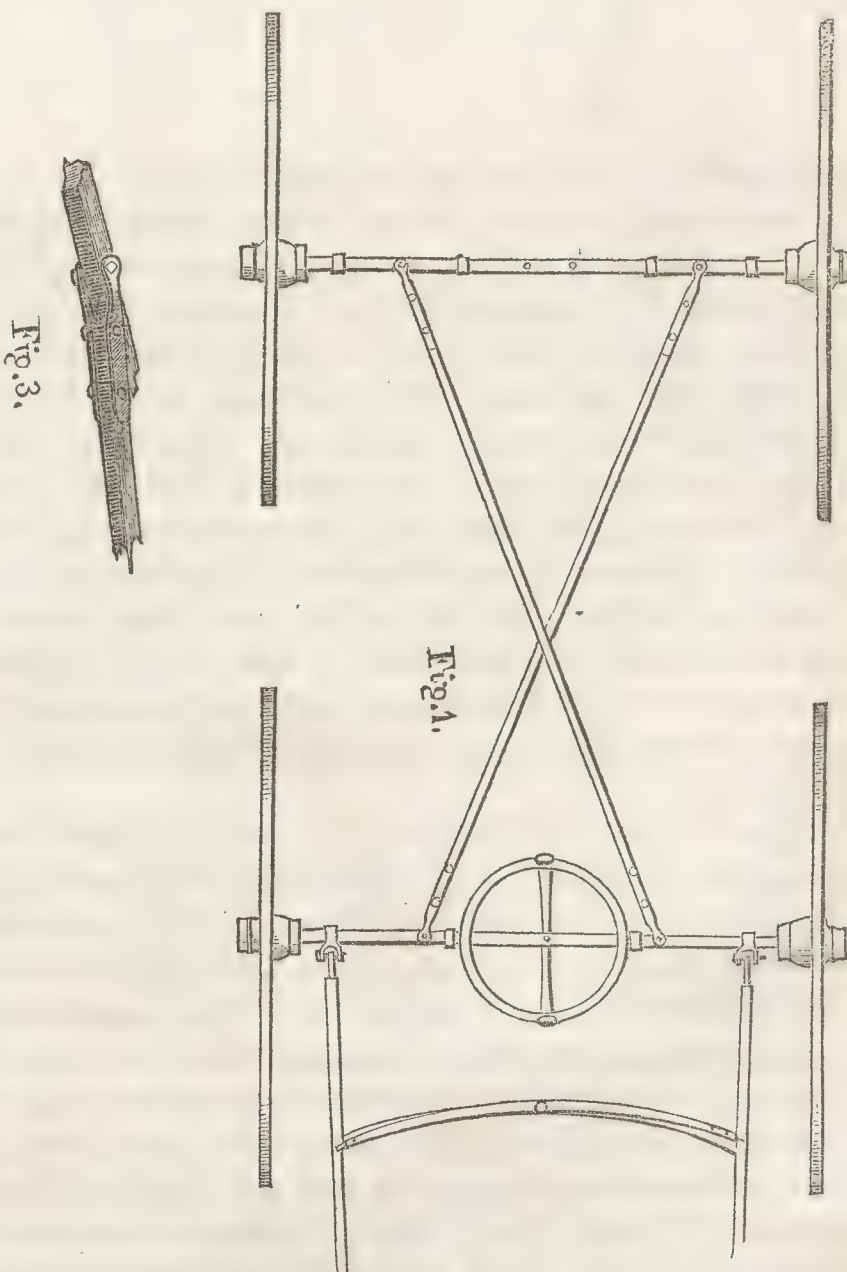
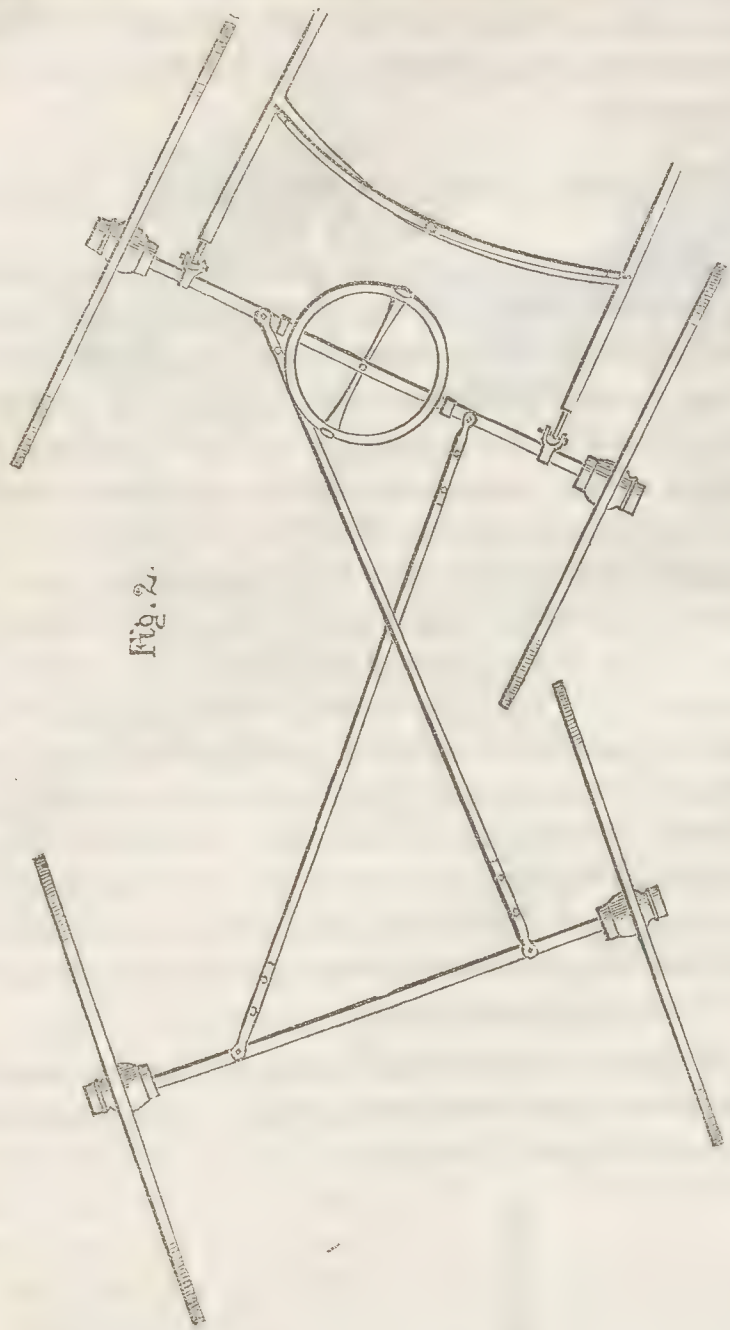


Fig. 1 represents the carriage part with all its connections save the springs, and in a straight position. Fig. 2 is the same in a turning position.

Its Construction.—Experience in the use of this coupling has



proven that the dimensions best adapted to ordinary one seat or two passenger buggies are as follows: First—let the two axles be coupled five feet apart, and connect them by means of two straight hickory perches $1\frac{1}{4}$ in. square, with no iron upon them save the connecting irons at each end, which are simply two pieces about 9 inches long, with a flat surface of 6 inches to lay on the wood, one on top and the other on the bottom side, and there secured by two $\frac{3}{8}$ in. bolts, and fastened to the axles back and front with one bolt passing down through the axle. Fig. 3 is a representation of this connection. The perches should be placed $18\frac{1}{2}$ inches apart on the front axle, and $34\frac{1}{2}$ in. apart on the hind one. Hind wheels 48 inches, and the front ones 40 inches. A fifth wheel is placed on the front axle of a 14 inch circle, and a light one also, of a 6 inch circle on top of the hind spring, on which the spring bar is made to rest.

Its Operations.—A vehicle constructed with Verleger's Patent Coupling after the manner above illustrated and described, possesses more desirable and practical advantages in its peculiar mode of operation, than that of any other whose axles are connected by a perch or perches. The most prevalent objection or imperfection in the modern stamp of four wheeled buggies is that of turning. The bodies being wide and hung low, the carriage requires a much larger space for turning than is either safe or convenient, and it was this serious imperfection that set to work the ingenious heads of Haussknecht, Everett, Cisco, Chope, York and others, to devise some principles which should obviate this difficulty, and each in his turn succeeded to a certain extent, and it is equally true that each has likewise failed to make his improvement perfection. If we except the coupling of Tho's Chope & Bro., of Detroit, there is not one that does not throw the front extremity of the body off

the centre of the fore axle, and that too in the opposite direction in which the carriage is turning, and thus increasing its liabilities to upset, instead of diminishing them, as they should do. And moreover, the amount of friction that is attending all couplings ever yet patented, is a matter seriously objected to by the majority of those using them, yet some of them answer an admirable. And again, where the coupling pin is placed in the rear of the forward axle, the control of the carriage is lost in proportion to the distance it is placed in the rear; thus when running along in deep ruts, or angling across rail road tracks, the hind wheels are inclined to slip and slide along in a direction contrary to the one taken by the front wheels, and indeed even the ordinary coupling, where the king bolt is directly through the centre of the front axle, is more or less subject to this imperfection. To some it may appear like a marvelous fact, that simply two straight perches (crossing each other) permanently fastened to the axles will so operate as to entirely and most effectually obviate all the difficulties here referred to, yet it is a fact, and one worthy the attention of the craft generally.

In making this statement, we are fully aware that there is a notion prevalent among certain classes of our brethren, that the hind axle of a carriage can never be successfully operated upon when in the act of turning, and furthermore, that if the hind axle is thus operated upon, the carriage can not be made to track, and to which some years ago we partially subscribed ourself; but experience, (that solver of all problems) and the use of the Verleger's coupling, has taught us that nothing is farther from the truth.

To illustrate, see fig. 1 which is in a straight position, and a moment's reflection will convince you that there is no plan by which you can more permanently connect two axles together than is there illustrated, for each axle is equally and thoroughly braced, and you will also perceive that while the carriage is running straight forward, it must run perfectly steady, and track more exactly than a carriage coupled in the ordinary way. Fancy, also, that you are driving this carriage down some sideling hill, when slippery or icy, and you will further perceive that there is no sliding or slipping around of the hind wheels, (as would be the case if the hind axle was connected to the front one after the old plan) for the reason that the axles are so braced and connected to the perches, as to prevent their assuming a contrary position to each other, and hence the vehicle is made to follow the horse more steady and correctly than any other now in use, and in fast driving it is astonishing to notice the difference there is between the steadiness of this carriage, and one with the old coupling or any of the patented ones. Its superiority in this respect alone, should, we think, give it a prominent place among the best improvements of the age.

But to complete our remarks. Let us again suppose that our carriage, Fig. 1, is now standing or running in deep ruts, and we wish to turn out of them. Now observe, that as the hind axle is operated upon, when in the act of turning, the very instant that the front wheels are out of the rut, the hind ones are out likewise. By referring to fig. 2 you will further observe, that it is utterly impossible for the hind wheels to slide and slip along in the rut when the front ones are out of it; a thing common in all other couplings; and the same is true in passing angling over a railroad track; the hind wheels can not slide along against the rail while the front ones are over it.

The Cost of Construction.—As the perches are made of wood, no iron required to support them, and no iron stays are employed, or necessary, it becomes apparent that the application of this coup-

ling is the saving of at least \$10 to every carriage in material and work. And now, to be free and candid with our friends who have written us for this information, and all others to whom this improvement may be presented, we must state, that in our opinion this coupling is far superior to any other ever employed in the construction of light wagons, and that those who purchase it can rest assured they are *not* paying their hard earned money for a *humbug*, for it is all and even more than it seems to be.

C. Verleger, of Baltimore, Md., is the patentee, to whom applications must be made for the right of this improvement, for all or any territory except Ohio, Pennsylvania, New York and New Jersey, which latter belongs to Ridgeway, Deihm & Huffman, of Pottsville, Pa.

IMPROVEMENTS IN OUR DRAWING DEPARTMENT.—Ever since the commencement of the Magazine, we have been troubled in getting a *plate paper* sufficiently smooth to print the engravings clear and distinct. The paper we now use is made expressly for the Magazine, and is of such a finish as to improve the appearance of our drawings a hundred per cent. Compare the fashion plates on this paper with those in any of the preceding No.'s and the improvement we refer to will be easily seen.

GEO. C. MILLER, OF CINCINNATI, O.—There are but few men in this country who have made coach-making a *lifetime* business, can boast of more success than the gentleman above named. He commenced in Cincinnati when the now "prond Queen of the West" was in her infancy, and by his persevering industry and close application to business, he seems to have grown with her, both in strength and importance, and now in the evening of life we find him one of the most extensive and influential coach-makers in the West. He has honored his *trade*, and now in turn it honors him.

HIRAM A. PRYOR.—This gentleman who figured so pompously in Pittsburgh, to the injury of himself and every body in the business, seems to have made his fortune and retired, or *fizzled out* and quit, we can't say which. True, he has proposed in his advertisement to do something considerable in St. Louis, but somehow "it's no go." We are, however, indirectly informed, that he has abandoned the coach trimming project in disgust, and is now dealing in "Family Groceries," or about to do so. "How have the mighty fallen!"

SUPPLEMENT TO THE CHIP BASKET.

Our friends, the Messrs. Singer & Co., who by-the-by have proved themselves the motors of inventors, have concentrated the very essence of their superior talent into the production of a machine for stitching leather, which we think will take down any "ten hands" at stitching *without cutting in the eye*, "at all, at all." Those of the craft who would get rich "beyond the dreams of avarice," are advised to purchase at once. "That's so!" See their advertisement on the last page of the cover.

BLACKING FOR LEATHER.—We have been visited by a genius, the first letters of whose name is J. H. Bruce—second only to Scotland's hero—who left a recipe for making eight gallons (!) of a beautiful black for the trimming shop, and it only costs 25 cts for the whole, at the moderate charge of 50 cts.—It is made of—no, we promised not to tell, and you must get his directions when he gives you a call, for "he is around."

Our Associate Editor, Mr. E. M. Stratton, of N. Y., will make a short tour through the New England States some time in July, when he will make it his business to call upon our friends as he sojourns from place to place, to collect subscribers and advertise for the Magazine. Any attention shown him will be duly appreciated by us.

WANTED IMMEDIATELY—A first class Body Maker, Carriage Ironer, Painter and Trimmer, all competent to serve as foremen in their respective branches, to whom good wages and constant employment will be given.

Address E. K. WISELL, Warren, Ohio.

GREENLEAF'S IMPROVED CARRIAGE COUPLING—PATENTED APRIL 8, 1856.—GREENLEAF & DANIELS, PROPRIETORS, GREENFIELD, OHIO.

We have just had the pleasure of inspecting a carriage which had the coupling above mentioned, applied, and in justice to the inventor it is but due him to state, that we were much pleased with its operations. It retains the front extremity of the perch to the centre of the fore axle and the body only is operated upon when in the act of turning. We observed there is none of that unpleasant movement in its operations so common in sliding couplings. This improvement will be extensively introduced by the proprietors among the craft in Ohio, the present month (July) and August. Below we give a copy of the specification, and claim attached to the letters patent, which will give a correct idea as to its mode of construction and application:

TO ALL WHOM IT MAY CONCERN: Be it known that I, WILLIAM GREENLEAF, of Greenfield, in the county of Highland, in the State of Ohio, have invented a new and improved mode for coupling Carriages and Buggies, by which they can be turned short around without danger of upsetting, and at the same time without turning the hind wheels in an opposite direction from the fore wheels, and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings as a part of this specification, in which Fig. 1 is a perspective view in a turning position, and Fig. 2 is a longitudinal elevation or top view, representing the running-gear in a straight position. C D S (Fig. 2) is a circular T, the shank S extending back 18 inches, 12 inches of which shank rests on the front end of the perch, and is fastened thereon with two bolts; the centre of the T plate rests upon the centre of the front axle, and is fastened with a king bolt with a counter-sunk head as seen at T (Fig. 1). The whole T is made of bar iron $1\frac{1}{2}$ inch in width, and $\frac{1}{2}$ in. in thickness; the T plate, C D, being 3 feet long, and having a radius equal to the length of the Buggy or Carriage from the centre of the hind axle; the T plate remains stationary with the perch when in a turning position, as seen at C D (Fig. 1). The letters V. W. (Fig. 2) represent a plate made of iron, 12 inches long, $\frac{1}{2}$ inch thick, and $1\frac{1}{2}$ inches wide in the centre, having a radius $\frac{1}{2}$ inch less than the T plate, and riveted fast to the under side of the T plate at each end, $\frac{1}{2}$ inch back from the front edge of T plate in order to give room for the hook to work over the front edge of the T plate. The letter U (Fig. 1) represents an iron plate of the same size as V. W., except that it is only $\frac{1}{4}$ of an inch thick, fastened to the centre of the front axle with two bolts, one at each end. A O B (Fig. 2) is a half circle, with a radius of 18 inches, made of bar iron 1 inch wide and $\frac{1}{2}$ inch thick, and is fastened to the front axle at the ends, A B, by means of clips, as seen in Fig. 1, and is bent up so as to support the T plate, when the weight of the body is thrown upon the end of it, when in a turning position, as seen in Fig. 1. The letters E F G H (Fig. 2) represent the moving rods which are made of $\frac{1}{2}$ oval iron, with two small pieces of iron, 4 1/4, welded between the rods so as to form the mortise I, which is 6 inches long and $\frac{1}{2}$ inch wide, the front end of the mortise being 15 inches from the front part of the front spring. The ends of the moving rods at E and F are welded fast to the ends of a plate fastened to the lower side of the head block, which plate is 12 inches long, $1\frac{1}{4}$ inches wide, and $\frac{1}{2}$ of an inch thick, and rests on the T plate C D, and is of the same radius, and slides on the said T plate when turning, as seen in Fig. 1, and is kept to its proper place by means of a hook in the centre of it, turned down over the front of T plate, C D. The back end of the moving rods, G H, are welded to the ends of a plate of iron 7 inches long, $1\frac{1}{2}$ inches wide, and $\frac{1}{2}$ of an inch thick, on which plate the back spring rests; this plate is kept to its proper place by means of a strong bolt passing through the centre of the hind axle, and by a hook at each end turned down over the ends of another plate of the same dimensions, which last mentioned plate is fastened to the centre of the hind axle by a bolt at each end. This allows the moving rods and hind spring to pivot on the centre of the hind axle when turning, as seen in Fig. 1. The letter O (Fig. 2) represents a half-inch bolt which is fastened solid in the centre of the half circle, A O B, extending up through the back end of the mortise I, with a tap on the top, which keeps it to its proper place. When the buggy or carriage is turning to the left, as seen in Fig. 1, the bolt O moves the body, N P Q R, to the right, until the end of the moving rod at F is at the end of the T plate, C D, at D, (or the reverse when the buggy is turning to the right,) which throws the body out of the way of the fore wheel, thereby allowing the buggy or carriage to turn short around. At the same time the bolt O slides to the front end of mortise I, (Fig. 1,) which prevents the fore wheel from coming in contact with the body and thereby lessens the liability of upsetting, and also prevents any strain or stress upon the perch X Y, the whole stress being lengthwise on the moving rods, E F G H; and the half circle, A O B, preventing any liability of breaking the perch. Also, the end of the T plate, C D, always resting upon the half circle, A O B, when turning renders the whole front part of the carriage or buggy firm and solid, and the moving rods being attached solid to both of the springs, prevents the springs from spreading from each other lengthwise of the buggy, and thus being strained and racked in turning.

The several parts above described are for a common sized buggy, $5\frac{1}{2}$ feet long. For a larger or smaller one the several parts must be proportioned accordingly.

Now, what I claim as my invention and desire to secure by Letters Patent is the application of the moving rods, E F G H, the circular T plate, C D S, and the half circle, A O B, as above described or any other apparatus substantially the same, and which will produce the same effects.

Further information respecting the right of this coupling, can be had by letter addressed to the proprietors as above.

The proprietors of Greenleaf's Patent Coupling for Carriages, expect to visit the following Counties in Ohio during the months of July and August: Morgan, Muskingum, Coshocton, Knox, Richland, Huron, Erie, Lorain, Cuyahoga, Medina, Wayne, Ashland, Licking, Pickaway and Fayette. And during the same months our agent, Mr. H. S. Williams expects to visit the following counties: Madison, Clark, Champaign, Logan, Shelby, Miami, Darke, Preble, Montgomery, Greene and Clinton.

All communications with reference to the Coupling will be promptly attended to. Address GREENLEAF, DANIELS & SON, Greenfield, Highland County, Ohio.

Agents wanted.

PROSPECTUS FOR VOL. 1, 1855, OF THE COACH-MAKERS' ILLUSTRATED MONTHLY MAGAZINE.—REPRINT—FOURTH EDITION.

Every individual who is a subscriber to the present volume of this journal, very soon perceives that without the first volume his work is incomplete, and therefore does not possess to him that practical worth it would be susceptible of doing were it complete from the first No. Owing to this fact, a demand has been created for the back numbers, (among those who have but commenced with the present volume,) so great that we are induced to offer this Prospectus, and propose to reprint a fourth edition as soon as we shall receive 1000 subscribers for the same, (of which No. we now lack but one half,) and if all those who have already made inquiries concerning the back numbers will send in their names, the 1000 can be made out immediately, and we will forthwith proceed to reprint a large edition. The volume will be neatly bound in muslin, with morocco gilt back and corners, and will be furnished to single subscribers at \$4.00, or ten volumes for \$30.00, free of postage to any part of the United States. The money to be forwarded as soon as we notify the subscribers that the volume is complete, and ready for circulation, or to the Post Master on delivery. At present we want only your names and orders for the vol. 1.

THE COACH-MAKERS' MAGAZINE.

SARVEN'S PATENT ANTI-RATTLING, ANTI-FRICTION SHAFT COUPLING.

*That will last as long as a Carriage to which it
is attached, without costing a
dime for repairs.*

BEING ON AN ENTIRELY NEW PRINCIPLE, discarding altogether the old Jack Bolts with their long ends projecting out, which certainly possess neither beauty, durability, or correspond with any other portion of a finely finished vehicle. I will not undertake to describe this Coupling, but simply say, that it is not complicated or expensive, and makes a perfect finish. I employ neither Indiarubber or Springs, and its operation is not affected like most of Spring Couplings by being clogged in winter by ice or frozen mud. If you will imagine a smoothly turned globe or ball, working in equally smooth chambers that can be oiled, excluding dirt and grit, and the chambers so arranged that their pressure upon the globe is regulated by a set screw, no wear coming upon the screw, but entirely upon the globe, you have as good an idea of the coupling as you probably can get, without seeing the coupling itself, which being of different sizes, is adapted to light or heavy work.

Any information in relation to this coupling, may be had by addressing the undersigned.

JAMES D. SARVEN,

Inventor and Patentee, Columbia, Tenn.

June 20th, 1856.

P. S.—It will be admitted that the globe will not break, and no wear coming upon any other part of the coupling, it is believed to be made on the best known mechanical principle, to prevent wear and friction; but the idea of oiling a Shaft coupling and excluding dirt and grit may not appear to possess much merit. Let me ask why we oil an axle, or try to exclude dirt or grit, and how long an axle would last if left exposed, and without oil, as is common in shaft couplings. In both cases, there being continual motion and rubbing of metal together when a carriage is in use, and as the same law of wear and friction is applicable in both cases, is it not plain that the same remedy must be applied in one case as in the other? Having had an experience of nearly twenty-five years in the coach business, both East and West, and having noticed somewhat the march of improvement during that time, I have no hesitation in offering this as an improvement to overcome the difficulties so long and so often experienced by the carriage making and carriage using community, and invite a careful, critical, and impartial examination before sentence is pronounced.

J. D. S.

SAMUEL F. PRATT,

PASCAL P. PRATT,

WM. P. LETCHWORTH.

PRATT & LETCHWORTH,



MANUFACTURERS, IMPORTERS & DEALERS IN EVERY DESCRIPTION OF
SADDLERY, COACH & TRUNK HARDWARE,

*Have removed to the Buff-Color Brick Store, No. 34 Terrace Street,
Opposite the Western Hotel, and adjoining the Hardware Store of Messrs. Pratt & Co.*

BUFFALO, N. Y.

[June 1856.]

RAHWAY HUB MANUFACTORY.

The Largest and Best of the kind in the United States.

EVERY VARIETY OF SEASONED, MORTICED, & UNMORTICED, KEPT CONSTANTLY ON HAND, SUITABLE FOR TRUCKS, Heavy Wagons, Omnibusses, Coaches, Rockaways, Buggies, Sulkies, &c. The subscriber spares no pains in procuring the best of timber, and in getting up his work in the most approved style.
Aug. 1855. JOHN URMSTON.
Union St., Rahway, N. J.

SMITH & VAN HORN,

No. 70 Beckman St., between Pearl & Gold Sts.,

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IMPORTERS OF & DEALERS IN

CARRIAGE HARDWARE TRIMMINGS, &C.

HAVE ALWAYS ON HAND

Springs—all qualities.
Axles—all kinds,
Malleable Castings,
Carriage Bolts—best and common,
Patent Leather,
Enameled do.,
Painted Cloth,
Enameled Muslin do.,
Drills, do.,
Duck do.,
Broad Cloth—all colors,
Damask—Worsted and Cotton,
Orleans Cloth—Silk Stripe, do.,
Plain,
Brocatelles and Cotelines,
Curtain Silks,
Silk and Worsted Coach Linings,
Fringe and Tassels,
Brussels and Velvet Carpet,
Oil Cloth Carpet,
Caleche Fixtures,
Spring Barrels,
Curtain Frames,
Coach and Buggy Lamps,
Lining and Saddle Nails,
Rein Hook Levers.

Brass and Silver Top Drops,
Curled Hair and Moss,
Turned Spokes,
Morticed Hubs,
Bent Felloes,
Poles,
Carriage Bows,
Bent Shafts,
Carved Carriage Parts,
Spring Bars,
Bands,
Locks,
Knobs,
Tacks,
Screws,
Joints,
Handles,
Files,
Buggy Wheels,
Sand Paper,
English Coach Varnish,
American do.,
Brown Japan,
English Black Japan, for Iron Work,
Saunders' Axles; all descriptions
Wrought Iron Fifth Wheels,

As well as all other articles used in the manufacture of Carriages, S. & V. H. from their long experience in the business, think that their stock, which has been selected with great care and with a view to supply consumers, will, for quality and price, favorably compare with any other in the market, and solicit a trial from carriage manufacturers.

English Varnish and Japan, put up in 1 Gal. Tin Cans.—Price of Carriage Varnish, \$5.—Body, do., \$6.75, Japan, \$5.00, Enameled Leather Varnish, \$6 per Gal.
[July 1856]

C. N. LOCKWOOD,

(Late Eagles & Lockwood,)

COACH LAMP MANUFACTURER

AND SILVER PLATER,

16, MECHANIC ST.,

NEWARK, N. J.

THE LARGEST ASSORTMENT IN THE UNITED STATES, embracing over 100 different sizes and patterns of Coach and Buggy Lamps.

Engine and Signal Lamps, Coach and Candel Mouldings, Curtain Frames, Dashes, Railings, Branch Irons, Handles, Pole Hooks, Tuft Nails, &c., &c., constantly on hand, at Wholesale and Retail.
[July 1856.]

DELAWARE

Spoke & Bending Factory.

JOHN McELROY, PROPRIETOR.

HAVING LEASED MY CARRIAGE FACTORY FOR A TERM of years, I am now devoting my whole attention to the manufacturing of every description of Spokes, Hubs, Felloes, Shafts, Poles, Bows, &c., &c., which for quality of timber and workmanship, cannot be surpassed in any market, and which will be sold to the craft on as favorable terms as at any other establishment in this country. Being located on the C. C. & C. Rail Road, and S. M. & P. R. R., the facilities for shipping are as good as from any other point in the State.

LIST OF PRICES:

Spokes from 1 in. to 2 1/4, per hundred	\$5 00
Bent Felloes 1 in. to 1 1/2, 1 1/2 per set	1 60
" " 1 1/2 & 1 3/4	1 75
" " 1 3/4 & 1 3/4	2 00
Bows, per set	70
Wagon bows, 6 to the set	1 60
Light	1 25
Shafts, bent heel	55
" straight heel	45
Buggy Poles	70
Sulky Shafts, per pair	75
Buggy Hubs, unmorticed	87 1/2
2 Horse Wagon Hubs, oak	1 37 1/2
Five per cent off for Cash.	2 25

Orders solicited. Address
JOHN McELROY, Delaware, Ohio.

Nov-1855.

J. W. WHEELER.

H. G. WATERS.

**FOREST CITY
SPOKE & BENDING FACTORY.**

Wheeler & Waters, Proprietors.

No. 76, Ontario St., Cleveland, Ohio.

MANUFACTURERS OF CUT & BENT FELLOES, SHAFTS, BOWS, TURNED SPOKES, POLES, &C.

OUR FACILITIES FOR MANUFACTURING ARE SUCH AS to enable us to furnish wood works of every description to the trade, on terms that will not fail to render entire satisfaction to all who may favor us with their patronage.

None but the best quality of timber is employed in our factory, and in point of smooth and perfect work in the spoke department, we flatter ourselves to say that we can not be excelled in any country. Orders solicited.

LIST OF PRICES:

Spokes from 1 in. to 1 1/4, per hundred	\$5 00
for Wagons Omnibuss do.	5 50
Bent Buggy felloes, per set	1 50
" Wagon " 2 in., per set	2 00
" Bows, per set	75
" Wagon Bows, 5 to set	1 00
Shafts, bent heel, per pair	60
" straight heel, per pair	50
" Sulky,	1 00
Poles	63

Nov-1855.

PLATE XIX.

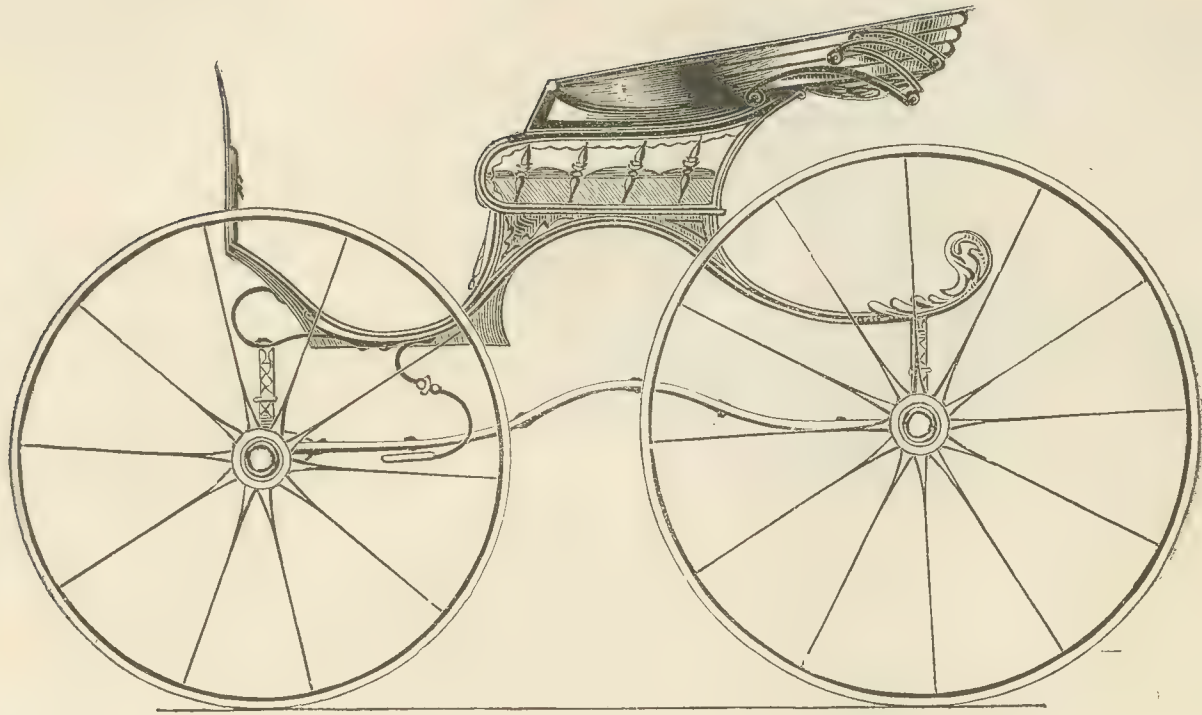


Fig 41.—The British Buggy.

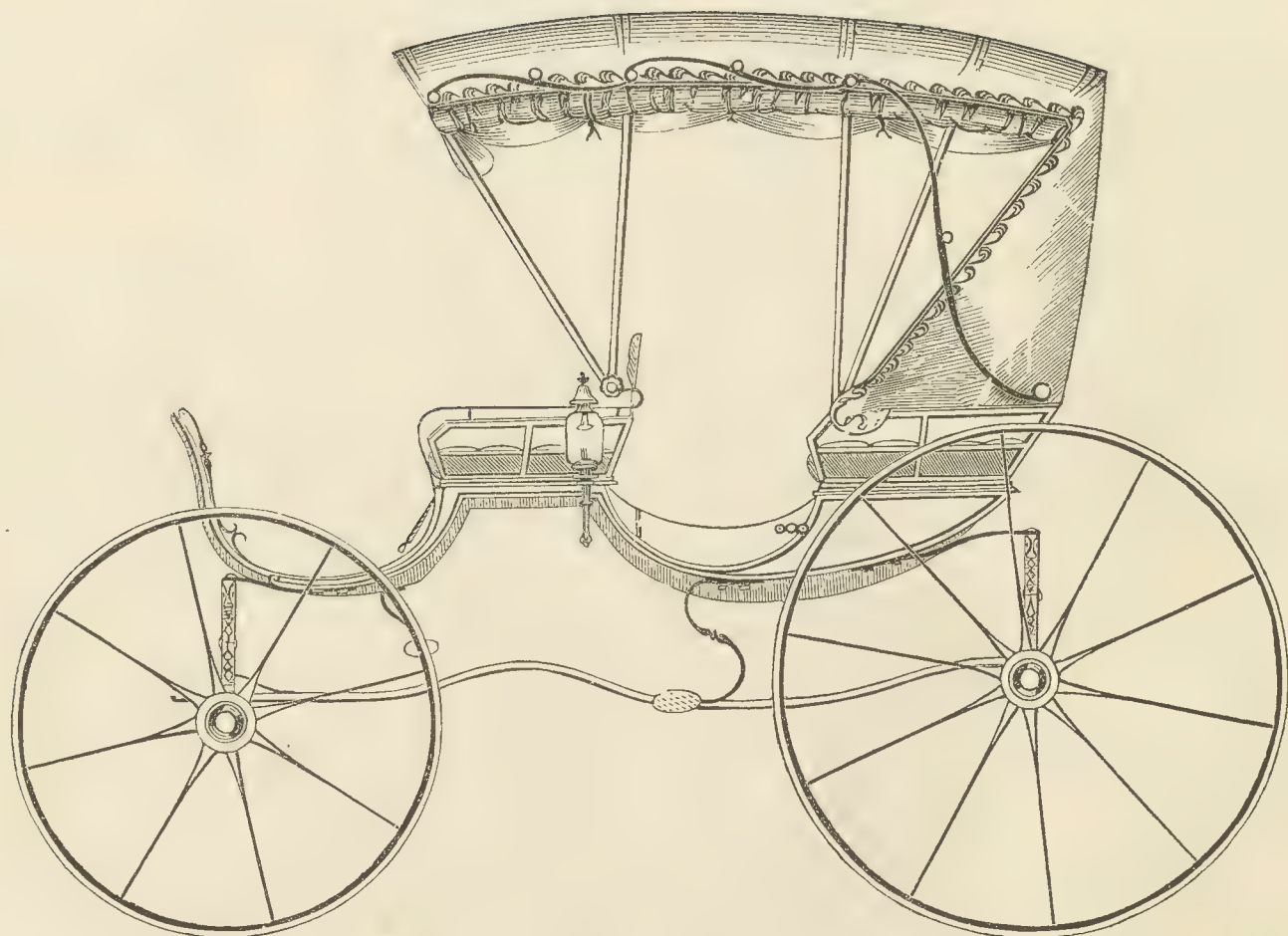


Fig. 42.—Extension Phaeton.

PLATE XX.

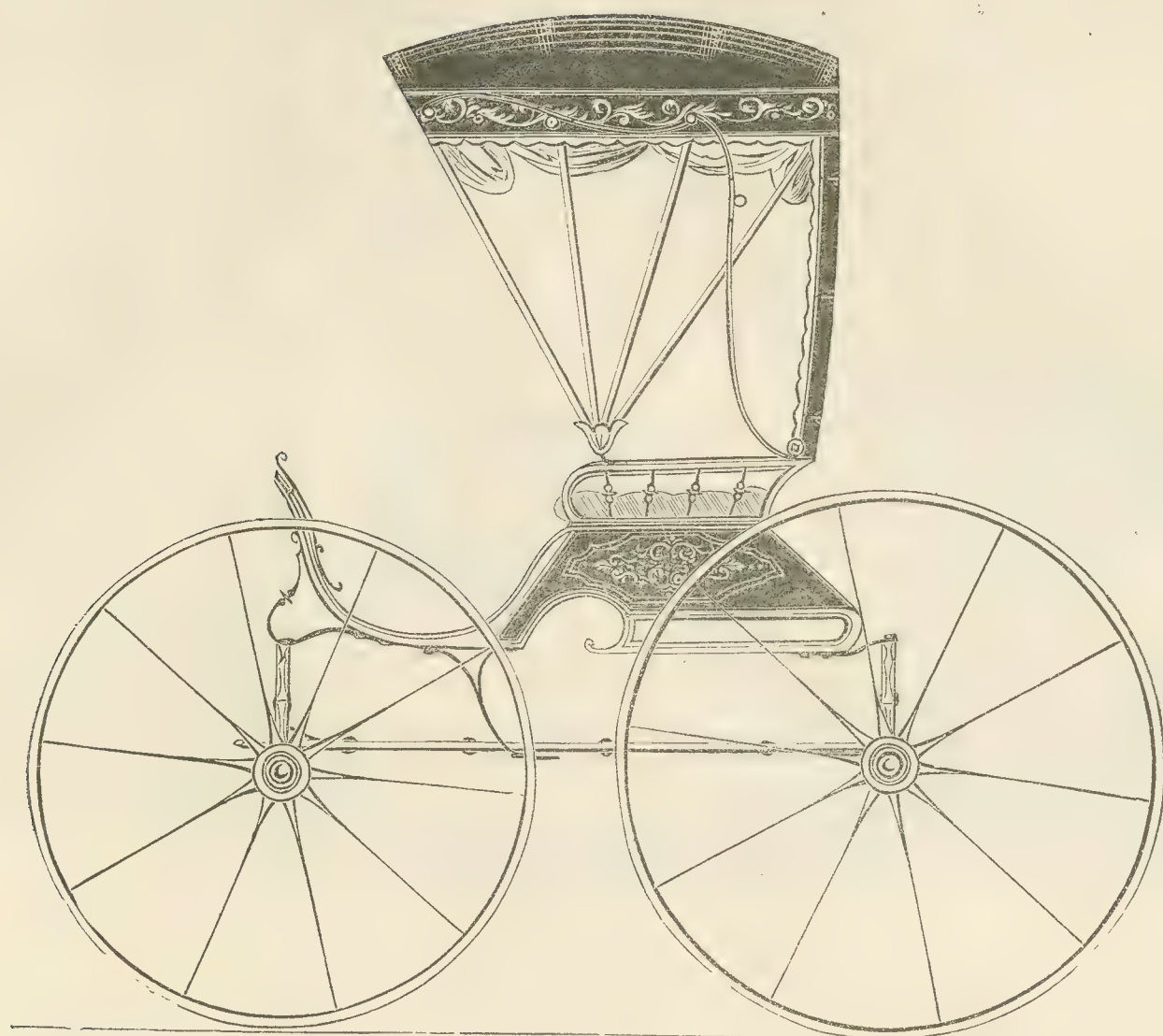


Fig. 43.—The Dennis Buggy.

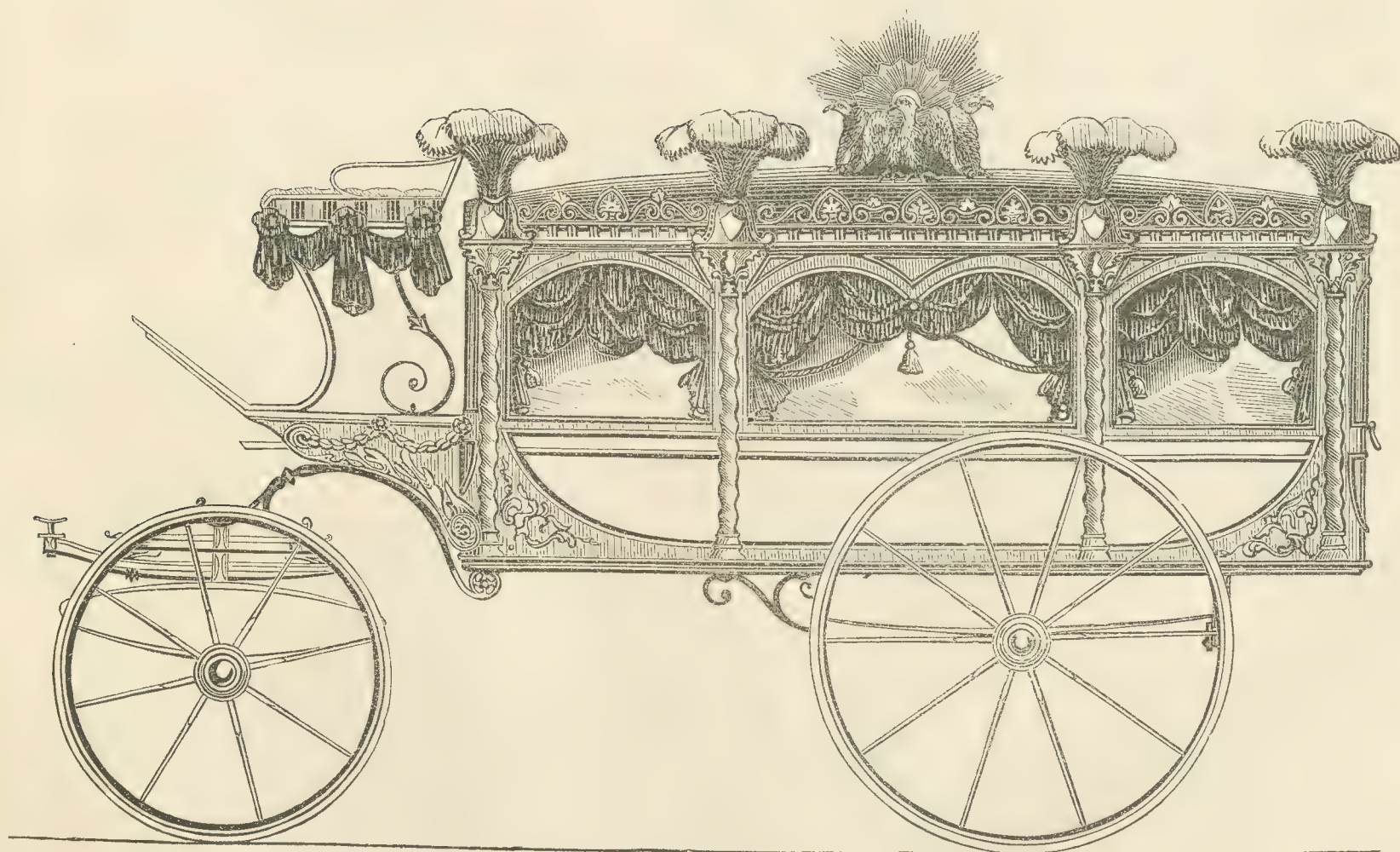


Fig. 44.—The Hearse.



Volume 2.--Number 8.]

August, 1856.

[E. W. Saladee, Editor and Proprietor.

TERMS:

Single subscription one year	\$3 00
Clubs of three	8 00
" " six	15 00
" " ten	20 00

Payable invariable in advance.

All Clubs, however, must be sent to one address.

Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented stamped on the cover in gilt letters.

All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Persons visiting New York, who are not subscribers, can see the Magazine and subscribe by calling at the Office of the Coach-Makers' Magazine, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for New York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

Back Numbers, from January 1st, furnished to all new Subscribers.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

All advertisements for a shorter time than twelve months are charged 50 cts per line for each insertion; Payable in advance.

Fashions for August.

For Saladee's Magazine.

FIG. 41.—THE BRITISH BUGGY.

MR. C. W. SALADEE—*Dear Sir:*—Ever since we have received the first No.'s of your very interesting journal, it has been our intention to contribute to its columns some of the modern styles of work made in this part of England, but from a press of business we were unable to perform such duty until now.

The drawing here given, was executed by a young artist now in our employ, and is the correct miniature of what is here known as the "American Buggy," but in reality it is a British design. The idea, however, of a light Phaeton Buggy suspended on a carriage with a perch is an American idea, and which idea is embraced in the design before you, although the style of the body is, we believe, widely different from the general class of two passenger buggies

made in your country. By way of explanation we need but remark that our body is made solid side with bottom side and rocker. The body is so arched under the seat that it admits of the wheel passing under sufficiently far to strike the perch, and therefore gives the vehicle a decided advantage in turning. The rocker is dropped in a curve, so as to make a true sweep out of the concave under the seat, and thus giving more room for the feet of the passenger. The bottom side and side to body could be made out of one piece of wood, and finished as represented in the sketch, letting the same piece form the pump handle also. The back part of the body, from the seat to where the carving commences on the end of the pump handles, is closed with a panel on the top and the bottom of the buggy extends back to the carving likewise, thus closing the top and bottom of the buggy back of the seat. The seat is made separate from the body and screwed on in the ordinary way.

Yours, truly, S. & R.

For Saladee's Magazine.

FIG. 42.—EXTENSION PHAETON.

MR. SALADEE:—I herewith send you for publication, a style of extension top carriage that may be very desirable by those who are making this class of work. This body is solid side and made up in the usual manner. The drawing will fully explain its mode of construction. This design is here looked upon as one of the best and most convenient family carriages now in use. The top being made to throw back renders it a desirable pleasure carriage for the family under all circumstances. Should you countenance this, I shall take the liberty to send you a drawing now and then. A. A. M.

For Saladee's Magazine.

FIG. 43.—THE DENNIS BUGGY.

MR. SALADEE:—We take pleasure in contributing to our Magazine any design that we may originate from time to time. We therefore send you a drawing of a buggy which is in part something new. First, the peculiar shape of the concave in the body, and second, the leather finish on the side. The Leather is applied in shape as shown by the deep black in the draft, fastened on with ivory or silver headed boss nails and a flourishing ornament stitched in the centre. (By-the-by those sewing machines advertised in your Magazine are just the thing.) The two points just mentioned being all we claim as original with us, a further description of the buggy is unnecessary, since it is in every other way after the ordi-

nary style. But we would remark that it makes one of the neatest and showy top buggies we have ever seen, for a cheap article.

D. & CO.

FIG. 44.—THE HEARSE.

The hearse is the most solemn and dreary looking vehicle the mind can possibly conceive of, nor indeed can it be otherwise, since it should harmonize seriously with the occasion for which it is intended. Therefore the solemnity of appearance in the construction of a hearse should demand as much thought and study in its design, as does the grand and gaudy appearance in the coach. Taking this view of the matter, we think we have succeeded in making our design of the hearse here given one of appropriate style. The drapery is on the inside of the glass, in place of the outside, as is usually the case, by which means a richness is obtained in the general appearance, which could not otherwise be effected, and moreover the drapery is preserved from all manner of dirt and dust, and then its lustre is retained. Our drawing will explain in detail the mode of its construction and operation.

COMMUNICATIONS.

For the Coach-Makers' Magazine.

THE IDEAL, INCEPTIVE, AND PROGRESSIVE HISTORY OF COACH-MAKING.

PART FIFTH.—THE CHARIOT CONTINUED.

*Ad alto
Deducit juvenem, Vulcania munera, currus
Aureus axis erat, temo aureus, aurea summae;
Curvatura rotæ; radii sum argenteus ordo.*
[OVID'S MET. LIB. 2.—105.—106.]

Should the reader with us examine critically the pages of ancient history as given of different nations—who have left an impress of character which time can never efface—he will find that each differed, in some respects materially, from the other, not only in the construction, but in the management of their war chariots. This will be plainly apparent after reading our last article, in comparing those of Egypt with the chariots of Assyria, as seen in the monumental remains of the two nations. It may also be interesting to us to mark especially the honor which appears to have attended its usage, from the most remote ages downward, as none except the most honorable classes of society were suffered to connect themselves with it in any capacity; either in war or the more peaceful pursuits of life—none but kings and the honorable of the nation either by birth, talents, or character. At this distance of time, of course, it will be a difficult matter for us to give a satisfactory reason why this was so, but we may reasonably suppose that a chariot was a very costly affair in those ancient times, and no person of limited means could afford to purchase a chariot, keep the horses to draw it, or furnish the means necessary to pay the retinue necessarily requisite in order to keep up appearances. We have no doubt but that in a larger or lesser degree, political motives bore with crushing influence against its general usage by the common people, which appears to have been the particular aim of all governors with absolute powers, even down to our times. In this connection we cannot resist the opportunity here presented to say; that it is our earnest wish that the day may soon dawn, all over the globe, when the powers that may rule shall be made to feel that they are only rulers by the free suffrages of an intelligent and liberty loving people—in a word that they are the creations of the governed, and therefore accountable to their creators.

Allusion has previously been made in these pages, [vide vol. 1. p. 31] to the alterations made in chariots by Cyrus, the Persian King, and the destroyer of Babylon as predicted by the sacred prophets (Isaiah 13 and 14 chapters, et sequor.—Jer. 15 chap. &c.) on fitting up chariots taken from a conquered enemy; but as a very brief account only is there given, we are induced to give a more extended relation thereof from the classic pages of Xenophon on the Institution of Cyrus (p. 97. Wardles' Ed.) The Trojan method of using chariots, that was practiced of old and that way of managing that is yet in use amongst the Cyreneans, he abolished. For formerly the Medes, Syrians and Arabians, and all the people of Asia used the same method, with respect to their chariots that the Cyreneans do at this time; and he was of the opinion that the very best of the men being mounted on chariots, they that probably constituted the chief strength of the army had the part only of skirmishers at a distance, and had no great share in the gaining of a victory. For three hundred chariots afford three hundred combatants, and these take up twelve hundred horses; [amongst the Assyrians nine hundred] then their drivers probably are such as these men, that are the best of the army, confide in; and here again are three hundred others and they such as do the enemy no manner of mischief. Therefore this sort of management, with respect to their chariots, he abolished; and instead of this, he provided a sort of warlike chariots, with wheels of great strength, so as not to be easily broken, and with axletrees that were long, because things that carry breadth are less liable to be overturned. The box for the drivers he made like a turret, and with a strong piece of timber: and the highest of these boxes reached up to the elbows of the drivers, that reaching over these box-

es they might drive the horses. The drivers he covered, all but the eyes, with armor. To the axletrees on each side of the wheels, he added steel scythes of about two cubits in length; and below, under the axletrees he fixed others pointing to the ground, as intending with these chariots to break in on the enemy. As Cyrus contrived these chariots, so, to this day, they use them in the king's territory."

These inventions of Cyrus as we shall presently see, were altogether inefficient and comparatively useless. The immediate successors of Cyrus—in their wars against Alexander—when drawn up in battle had placed these chariots armed with scythes in front of the army on the left wing, but Alexander who was on the right of his own army, and consequently opposite to these chariots, ordered his men to divide, when they saw them coming, which orders having strictly followed, the Grecian Army escaped uninjured. Subsequently at the battle of Thurium, when Sylla defeated Archelaus, one of the generals of Mithridates, the Roman soldiers treated these war chariots with such great contempt, that after the first had been sent against them, they called out for more, apparently being as well pleased as if they had been attending at a chariot race, for they had received no injury from them. This inefficiency in the appendage of the scythe to the chariot of war in the Persian army, no doubt soon had the effect of bringing it into contempt and disuse for they evidently never answered the purposes which Xenophon—himself a brave and skilful commander in the army of Cyrus expected they would, and the consequent result was, that they very soon were laid aside. Some three hundred years after the days of Cyrus, we have an account of the chariot as used by the ancient Britons with whom the Romans were at war, and to which we have previously alluded. This has been graphically given by an eye-witness of what he relates, and which we here transcribe as literally rendered from the original Latin in Stratton's unpublished MSS. translation of Cain's Julius Caesar's Commentaries on the war in Gaul, Book 4, chap. 33. This is the manner of fighting from chariots; at first they drive around in all directions and hurl their darts; and by the very squeak of the wheels [strepitu rotarum] they alarm the horses of the foe, and generally throw the ranks into disorder; and when they worked themselves in among a troop of cavalry, they jump down from the chariots and fight on their feet. In the meanwhile the charioteers [auriga] come gradually out of the fight and place themselves in such a position with the chariot, that, if they should be hard pressed by a multitude of the enemy, they have it in readiness for their reception. Thus they exhibit in their battles the celerity of cavalry and the firmness of foot soldiers; and so being themselves by daily practise and exercise that they are enabled to hold in the horses at full gallop, in a steep and precipitous place, and in one moment to manage and turn, and place them under the beam [te monem percurrere] and stop them under the yoke, and afterwards they are accustomed to betake themselves very quickly into the chariot.

We find in Virgil

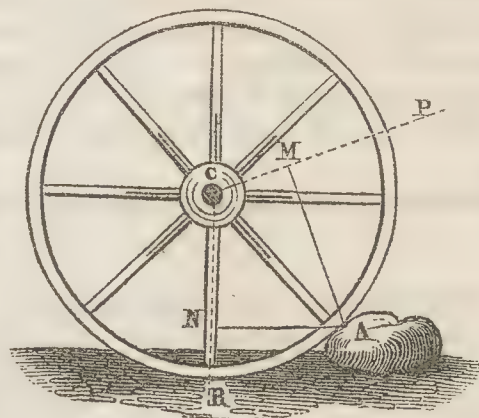
"Achilles through the plain
On his high chariot driving o'er the slain."

besides many other allusions in cotemporary authors of its uses on the field of battle, but the limits to which we had confined ourself in the commencement of this subject will prevent our going farther, than in a following No. to treat of its history in the light of indulgence, or pleasure, with which we shall conclude the subject.

E. M. S

For the Coach-Makers' Magazine.

THE CARRIAGE—ITS OPERATIONS.



MR. SALADEE:—Allow me to offer a few remarks upon the operations of wheeled carriages, believing they will not be amiss to the younger portion of our fraternity, and with your permission I will hereafter furnish a brief article on friction, a subject which is not as generally understood by my brother workmen, as I should love to see it.

With these introductory remarks, I pass to notice that when a loaded carriage is moved on a horizontal plane, free of obstacles, the resistance to be overcome does not consist of the weight of the load directly, but of the friction occasioned by the weight. For since the weight acts in a direct perpendicular to the plane, it cannot oppose the motion of a carriage in a direct parallel to the plane. Nor would increasing the weight to any extent make any difference, were it not that we could thus increase the friction which is proportioned to the weight. When a carriage wheel is made to slide on the ground, (as when a wheel is locked) the whole amount of friction is encountered without bringing to our aid any mechanical advantage; but when a wheel turns on its axle, the friction is trans-

ferred from the ground to the axle and each spoke of the wheel successively becomes a lever, turning on the ground as a fulcrum, while the power or force of the team is exerted on the end next to the axle. By thus transferring the friction from the ground to the axle, each spoke is made to aid in overcoming that friction.

Thus, in the above figure let C be the axle, C P the line of draft, and R the point where the wheel touches the plane. The force applied in the direction C P, acts on C R at C, and turns it on its fulcrum at R. This is the force by which the wheel is made to advance. But the friction on the axle at C reacts in the opposite direction, having a leverage equal only to the radius of the wheel. Hence, in the wheel there is a mechanical advantage gained in overcoming the friction, in the ratio of the radius of the wheel to the radius of the axle. Moreover, the axle may be made of such materials and lubricated with such substances as to render the actual amount of friction much less than it would be were the wheel made to slide along on the ground, in place of rolling over it. But the wheel has another important advantage, viz: in overcoming obstacles, in which case they act on the principle of the bent lever. Thus, let A be an obstacle, as a stone, for example. From A let fall the perpendiculars A N, A M, upon C R, C P, and concave M A N, to be a bent lever turning on A as a fulcrum, the power being applied at M, in the direction C P, and the weight resting on N, which supports the centre of gravity. Now, the mechanical advantage gained, will be in the ratio of M A to N A. It will therefore be increased, (and of course the force necessary to overcome the obstacle be diminished) as the point A is nearer to R, and the mechanical advantage will be lessened as the point A recedes from R. When the obstacle is so large as to make A M only equal to N, then no mechanical advantage is gained, but the whole weight of the load must be lifted by the former, and when A M becomes less than A N, the wheel involves a mechanical disadvantage, and the difficulty of carrying the wheel over the obstacle becomes very great. It is further obvious that large wheels have the mechanical advantage, both as regards overcoming the friction and overcoming obstacles in a larger degree than small ones, since these afforded a greater leverage than the others, on account of the increased length of the spokes. But in practice very large wheels cannot be employed, since they would be either too weak or too heavy, and the increased height of the axle would carry the centre of gravity too high, and enhance the danger of upsetting. The difficulty of turning would also render unusually high wheels ineligible, and the axle would be raised so high as to make the horse draw obliquely downward, and increase the pressure on the ground, whereas the line of draught ought to be so adjusted, as to lighten that pressure, especially where the road is soft and yielding.

When a wheel sinks below the surface, the force is rendered strikingly inefficacious from several causes. The fulcrum on which each spoke successively turns, gives way, and diminishes greatly the mechanical advantage otherwise gained by transferring the friction from the ground to the axle as before explained. Likewise the mud or sand into which the wheel has sunk opposes in front of the wheel obstacle like that represented at A, while the fulcrum on which the bent lever turns in the effort to lift the wheel over the obstacle gives way as in the other case, and therefore a great part of the mechanical advantage is lost. From these considerations it is easy to understand the reason of the superior advantage of hard and smooth roads.

And in connection with the foregoing, I would remark, that the line of draft should not be horizontal (as is frequently the error in the modern construction of carriages) but it should incline upward toward the breast of the horse, in an angle not less than 15 degrees with the horizon. This brings the strain nearly at right angles with the collar, whereas a horizontal draught lifts the collar upward, by which the force is wasted, and the animal liable to be choked.

The angle of the draft, however, should be less than the above when the road is hard and smooth. The general rule is, (or should be) that the angle should be the same as the inclination of a hill, down which the carriage would roll spontaneously, consequently, in smooth Macadamized roads the line of draft should be at a small angle, and on railways nearly horizontal. A pair of horses draw more advantageously abreast than when one is harnessed before the other. In the latter case, the forward horse being attached to the ends of the shafts, draws in a line about horizontal; consequently, he does not act with his whole force upon the load, and moreover ex-

pends part of his force in a vertical pressure on the back of the other horse. In my opinion there is no mistake so prevalent among the craft and void of all true mechanical principles as the modern application of the point or line of draft, and in no other part of the carriage is a reform so loudly called for as in this.

W. W.

For Saladee's Magazine.

OMNIBUS TRAVELING IN NEW YORK CITY.

We think it proper to inform the reader of this article, at the commencement, that the word *omnibus* is derived from the dative and ablative plural of the Latin adjective *omnis*, signifying all, the whole, &c. Of course, an adjective is not, nor can it be a part of speech suitable for designating or pointing out any particular kind of carriage, nor have we ever found it so used by classical authors. It is therefore supposed that the first originator and inventor of these vehicles had such an exalted idea of the capacity afforded by his contrivance, that—not unlike some others we wot of—he was forced to change an existing adjective into an expressive substantive in order to the more readily tell the world, he was prepared to furnish it with an *universal-carry-all*. However, be this as it may, we are prepared to declare in the face of all creation, that a more suitable or expressive name cannot readily be found in the whole range of the languages, either living or dead, and therefore the inventor deserves as much credit for the name given, as is due him for the object bestowed.

Twenty-three years have passed away since the first public omnibus appeared in our streets. We well remember the excitement manifest in the countenances of our citizens, as the strange looking vehicle moved along the cobble-stone rough and uneven pavement, of the then aristocratic, and since renowned Broadway, with its constantly changing and overloaded freight of human beings, at the charge of twelve-and-a-half cents per head, the whole route then only extending from the foot of Whitehall street—formerly under the Dutch government (1656) called the strand and established as a market place for country wagons—up Broadway to somewhere in the neighborhood of Bond street.

About the first to introduce the omnibus into the city was an enterprising citizen by the name of Evan Jones, who at that time, apparently, was successful in gaining that wealth, which seems to have been the untiring ambition of every projector of a new enterprise, from time immemorial down to the present generation. At first traveling by omnibus was very expensive for the short distance traveled, but competition and improved management has since brought it down to a price within the means of the most humble citizen, and in one or two instances to so low a figure as to give to the line the appropriate designation of "the poor-man's line." It must be conceded that the more wealthy part of the public at present give the bulk of their patronage to the cars, but the establishment of omnibus lines has been hitherto the means by which many of our now most wealthy aristocracy have gained their present position and influence. As is very frequently the case, Mr. Jones, although thought to be getting rich in running omnibusses, appears from some cause to have died a poor man. He told us a few years ago in conversing upon this subject that the principal cause of his ill success was the dishonesty of his drivers, which *qualification* seems to be accredited to the fraternity at the present time. We have no doubt but that there are many who still practice at the game of "knocking down" as it is called, yet we know of many honorable exceptions to this general charge against them, and consequently would not stigmatize the whole for the offences of a few. The omnibus of to-day is nearly of the same form as it was twenty years ago, and its modifications seem to have been but few. One peculiarity of the omnibus at its first advent among us was, that it had at the rear of the vehicle what we shall term an outsider, whose duty it was to hand the passenger in, and to collect the fares. This office of collecting the fare has long since been entrusted to the driver, whose insolence, in too many instances, has stained the characters of those engaged in the occupation; in addition to which the practice of appropriating the funds of the proprietor, has added additional disgrace to the whole fraternity. We observe that this custom of having the fares collected by a special clerk; as was the case originally in this country; is still continued in London and other cities on the continent of Europe. Whether our improvement in this respect is preferable to the earlier mode, does not come

within our province at this time to decide, and as long as stage proprietors are satisfied with their present arrangements in this respect, we shall not feel inclined to offer them our unasked advice upon this subject. Among the earliest—we think the first—firms engaged in running a line of omnibusses, was that of Kipp & Brown whose route was from the original terminus for all the city stages; the Battery—up Broadway to Canal Street; through Canal Street to Greenwich, to its termination in the ninth-avenue, much lower down than its present destination, which is at the corner of West 29th Street, and the ninth avenue. In a year or two after this line was organized, the proprietors suffered by the destruction of their stables by fire, a serious loss in horses and other property—so greatly were they damaged in their business, that the sympathies of a generous public were excited to give them a new start, and this firm on different occasions since have reciprocated this attention of a benevolent public, by stepping forward opportunely, to assist others in their distresses on various occasions. Subsequently the Third-avenue; the Bowery and Grand Street; the Chatham and East Broadway; that from the Grand Street Ferry, along Grand St., Broadway, Canal and Greenwich, to Cortlandt Street, to the Jersey City Ferry, were established.

As late as the year 1847 such were the circumscribed limits of this metropolis, that the public means of travel were met by the facilities afforded by only five lines of stages, owned by the Messrs. Kipp & Brown, Hatfield & Bertine, Chas. Dent, J. Murphy & Co., and Slocum, Reynolds & Weart. During the next seven years which succeeded, in consequence of the popular mania for moving up-town where the wealthy could the more conveniently gratify their passion for building costly residences for their families, the increased demands of a traveling public had called into existence no less than twenty-two distinct and separate lines, with favorable prospects in view of the patronage bestowed by the public, of making every proprietor, in a few years, a millionaire. The greatest obstacle the proprietors of omnibusses have had to contend with, has followed the establishment of railroads at different points of the city. When the Harlem Road was first put in operation, the charge from the city proper was twenty-five cents, but Dewitt C. Kellinger, who was an enterprising and energetic man and owner of a line of omnibusses along the third avenue, put the fare down to twelve-and-a-half cents, thereby placing his line in direct opposition to that of the railroad Co. This opposition of the omnibus to the locomotive, appeared at the time to give considerable amusement to the public in which the proprietor seemed to partake, for in his advertisement he told us that his drivers had particular instructions to not drive so fast as to outstrip the locomotive, unless by the express desire of his passengers, in which case he had given them special orders "to let her slide." This movement of the *Doctors*, although it did not make him rich, was very beneficial to the public, as it brought the Railroad Company down to his price, where it still remains. The price of the fare, with one exception, on any omnibus route in the city is uniformly six-and-a-quarter cents, at the present time, although the struggle between the omnibus and railroad car about two years since appeared to have the effect of causing a reduction in prices to about one half of its former amount.

Many have prophesied that the day was near when the omnibus would give place to the railroad car,—and it must be conceded that the business has been affected thereby injuriously and proved the annihilation of two or three lines—yet the increase in our population, and the establishment of other lines on entirely new routes has had the effect of preserving the business in a still very flourishing condition. The following lines are now [June] in successful operation in N. Y. City, viz: The Knickerbocker Stage Co., with 56 omnibusses employed on two routes; the first being from W. 23d Street down Eighth Avenue to Bleeker, Broadway and Whitehall Sts., to the South Ferry near the Battery; the other route being from W. 22d down Eighth Av., to the Fourth, through the Fourth to the Sixth Av., through Catharine, Bedford, Houston, Broadway and Maiden Lane to the Fulton Ferry; the New York consolidated Stage Co.* with 176 omnibusses employed on six routes, the first being from 42d street down Seventh Av., and Greenwich Av.,

*This Company at one period since, were the proprietors of no less than eight separate lines, and was organized in accordance with an act of the Legislature of the State of New York, passed April 4, 1854, entitled "an act to regulate stage routes in the city of New York, and to provide for the formation of companies to operate the same." It now has but 5 lines in operation, although 176 licences have been issued to the Company to the present time. We suspect that the primary design of the petitioners for the "act" was to monopolize the business and increase the fare, but that from circumstances adverse to their secret policy, their sinister motives have been defeated, and the public protected from gross impositions.

to Amity, through Amity to Broadway, through Broadway to Fulton street and the Fulton Ferry; the second being from 42d St down Broadway to the South Ferry; the third from 32d street and the Fourth Av. down the Fourth Av., Broadway and Whitehall streets, to the South Ferry; the fourth from Av. B and 14th street through that Av. to 10th, through 10th to avenue A, eighth street and Broadway to the South Ferry; the fifth from the Crystal Palace through 42d street to Broadway down Broadway to Wall street and the Wall street Ferry; the sixth from the Hudson River Railroad at 31st street the 31st, or one of the neighboring streets, through the 9th Av. 14th, Broadway and Whitehall streets to the South Ferry, thus having under its control nearly one-third of all the omnibus travel in the city. The East Broadway line of Messrs. Mackrell and Simpson with 30 omnibusses, running from 10th street to Av. C, through 10th street to Av. D, through the last named avenue to Lewis and Grand streets, to East Broadway, to Chatham street, down Broadway and Whitehall street to the South Ferry; the Bowery and Houston street line of the Messrs. Sudlow & Siney with 25 omnibusses, running from the end of Av. C, through that avenue to Houston, thence to the Bowery through Chatham and Broadway to the South Ferry; the Grand St. Line of Mr. C. G. Waterbury, comprising 33 omnibusses, starting from the corner of Av. C and 10th street, through that street to Av. D, through Av. D, Columbia, Grand, the Bowery, Chatham, Broadway and Whitehall streets to the South Ferry; the Fifth Av. line of Mr. Simeon A. Andrews, consisting of 26 omnibusses, starting from the corner of 42d street and Fifth Av. down through Broadway and Fulton street to the Fulton Ferry; Messrs. Geo. W. Homan's Line with 20 omnibusses from the Williamsburgh Ferry, through Grand, Cannon and Second sts, Av. C, Tenth, Av. B, Fourteenth, Third Av., Twenty-sixth, Broadway and Thirty-second street to the Hudson River Railroad depot at 31st street, with the privilege of setting down passengers at the Crystal Palace; the two lines of the Messrs. Corwin & Co., with 40 omnibusses, equally divided between them both, the one starting from 46th street and going through the Sixth Av., ninth street, Broadway and Whitehall streets to the South Ferry—the other line going the same route, except that it passes through the Eighth Av.; that of Messrs. Chas. Curtiss & Co., with 40 omnibusses from the Williamsburgh Ferry, through Grand, Broadway, Canal, Greenwich and Courtlandt streets to the Jersey City Ferry, probably as good and profitable a line as any other in the city; that of the Messrs. O'Keefe & Duryea, with 20 omnibusses, from Houston street Ferry, through Houston, Second, Bleeker, Broadway and Courtlandt streets to Courtlandt street Ferry; that of the Messrs. Murphy & Smith, consisting of 33 omnibusses, from the Crystal Palace up Fortieth street to Madison Av., 23d street to Broadway, down Broadway to John, Nassau and Wall streets to Wall street Ferry; that of Mr. C. T. Marshall from 23d and Av. A, down Essex, Division, Chatham, Broadway, Fulton, Washington and Courtlandt sts., to Courtlandt street Ferry; that of Mr. J. T. Mills (the No. of omnibusses not known) from the foot of W. 13th street through Av.'s A and B, Clinton and South sts. to the South Ferry; the Line of Mr. J. D. Mills, comprising 59 omnibusses, running from the Crystal Palace to 42d street, along the Fifth Av. to 44th street, then down the Third Av., Bowery, Pearl street, and Peck Slip, to the Fulton Ferry; that of Mr. R. Mackey with 20 omnibusses from 34th street through the Ninth Av., W. 23d street, Broadway and Whitehall street to the South Ferry; lastly that of Messrs. Jennings & Co., from 31st street, and Tenth Av. Fourteenth street, Ninth Av., Greenwich, Spring, Broadway, Broome, Bowery, Catherine and South streets to the Fulton Ferry. Besides the above we believe there is a line of stages connecting in Broadway at — street, extending from the South Ferry along the Bloomingdale road, to Manhattanville, and thence to the high Bridge, where the Croton aqueduct crosses the Harlem River; an object that would well repay a visit to it from any of our friends, who have never yet had an opportunity for seeing it. It will therefore be seen that we have no less than 594 omnibusses given, and if we suppose that the three companies whose numbers is not stated in the above list to be at least 20 each—and this is a low estimate—we have in round numbers 604 omnibusses in use for the accommodation of our metropolitan population.* For each omnibus is required six horses and an

*In 1852 there were 561 omnibusses in this city, paying a licence of \$20 each; 24 of \$10 each, and 32 of \$5, the whole paying annually into the city treasury \$10,500, comprised in 10 lines. In three years after (1855) they had increased to 566 only, but the last year has added 33 stages and increased the number of routes to 24.

additional one extra—generally those the worse for wear—for the six trips that each omnibus performs in each day; one hostler for every 26 horses, a starter at each end of the route, and one person to cart the feed and another to grind it to each stable and we have employed in the city for drawing omnibusses no less than 4,228 horses for the 24 routes—750 attaches, and an amount of food to materially affect the market.†

This number of omnibusses will be found to be nearly double the number required to accommodate the London public, as will be seen on reference to the May No of our Magazine (p. 50). Now, since that city is not *blessed* with as many urban Railroads as New York, it is very evident that patronage is more generally bestowed on public enterprises of this kind in our country than in the old world, and is a strong proof that we are a-go-ahead nation; were it not so—as the public here for two years has prophesied, but which our statistics prove to be otherwise the fact—the rail car would have driven them gradually from the city in a few years.

Our omnibusses, with very few exceptions, are more comfortable than those complained of in the British Metropolis, and the conveniences of the public would be greatly augmented, were a portion of the drivers to exercise a little more civility than has heretofore been the practice, and the public then would have but little reason for complaint. We have no doubt but that much of this improvement, in many respects, over the transatlantic prototype, is owing to the strong competition existing here between the omnibus and the rail car where the fare is uniformly five cents, and of which mode of travel we purpose to treat in a future article. Our next article will comprise the subject of "Hackney Coaching in New York."

E. M. S.

—†The price of oats has been so high, that proprietors here have resorted to a substitute composed of meal and ground hay, in the proportion of one-sixth meal, which probably has contributed to lessen the price of oats this year, although it is evident that the horse is not as able to accomplish the labor required of him, as well as when fed with oats.

EDITORIAL CORRESPONDENCE.

BRO. SALADEE:—In our youthful days we had a strong desire for travel, in order to see the world. We expressed that desire to an old and experienced neighbor of the legal profession, who merely remarked to us "now suppose you were to travel all over the globe you will only see men and women, you had better set yourself down to some lawful occupation—any useful and lawful business pursuit in life should be respected, even should it be nothing more exalted than trundling a wheel-barrow." Whether this sound advice has had any influence upon our past conduct, or not, would be difficult for us to settle, even now, yet this much we are forced to admit, that our travel has been exceedingly limited, but we hope before many years more pass away, to see something beside 'men and women,' and to prove our old adviser not merely an old fogey, but in addition a faulty educator.

With considerable of the romantic in our mind one fine morning in

"June, with its roses—June!
The gladdest month of our capricious year,
With its thick foliage, and its sunlight clear;
And with the drowsy tune
Of the bright leaping waters, as they pass
Laughingly on amid the springing grass."

we started from this dirty, unwholesome and misgoverned city to visit Jamaica, a beautiful inland village in the 'State of Long Island,'* some twelve miles distant from New York City and containing about twelve thousand inhabitants. In a pleasant ride of three-quarters of an hour we passed successively through Bedford, which is now almost swallowed up, or incorporated in the City of Brooklyn, East New York, Woodhaven, &c., all newly laid out and populous settled places, where the march of improvement under the direction of some enterprising 'patron' has obliterated the bog and morass, and sunk the surrounding hills to one common level. The most noticeable objects in the unsettled portions of our journey, were hedgerows of cedar, &c., rail fences, the white-daisy and wild-radishes, the flowery appearance of the 'wedgetable' objects not telling very favorable for the industry of the proprietors of these farms. Indeed, we think we will call these places the 'central flowery kingdom' in spite of any claim the 'Celestials' may set up, as we are disposed to *exalt* our own country 'as much as in us lieth.' In justice to our Long-Island neighbors we are happy to remark that our factories were greeted with the scent of some fine clover fields, such

—*Perhaps it will be somewhat new to the majority of our readers to find us giving to Long Island the appellation of 'State,' but we can assure them that an application to our New York State Legislature, for being set off to this honor is no new idea, and we have taken the liberty to give its inhabitants this position in advance of that body.

as a long pent up citizen of New York only can fully appreciate. We were fortunate enough on our arrival at the village, to meet with an old friend of ours who very kindly offered to introduce us—although as we afterward found it had already been done in your columns—to Mr. Jacob Smith, the most extensive manufacturer of carriages in the place, who employs some 20 hands, and the productions of whose factory would be creditable to any shop in New York. The boss himself we found to be the gentleman in the best sense of the word, and he to our great satisfaction led us over his extensive premises, showing us some of the finest hickory and oak plank it has ever been our privilege to see in a life of thirty years experience in the business, and we were greatly surprised to find that it was all felled in his immediate neighborhood, and some of it we were told had been seasoning for three years. The great desideratum and principal secret in producing good work, is to have on hand timber that is well seasoned, and this evidently is the aim of the proprietor. It is seldom that we come in contact with, or receive as many kind attentions from any in the business as we did here, and to Mr. Smith and his gentlemanly journeyman, Mr. Wood,—who we learned had been employed in this shop some sixteen years—we are under many obligations for our success in getting a goodly number of subscribers to the Mag., and to whom, in its monthly visits, we hope it may prove not only entertaining, but also instructive. It is characteristic of this establishment, that many of the hands have not only learned the trade there, but have continued in the shop, which is commendable in the journeymen, and speaks volumes in favor of their employer's character.

Besides Mr. Smith's factory we visited that of Mr. Crossman, in whose repository we saw some handsomely finished work; that of the Messrs. Everitts, and and Mr. Hendrys' in all of which our mission was successful, as they proved themselves our friends in the ready patronage they extended to our monthly and to all of them we take this opportunity to offer our thanks for their kindness, in addition to which we must be permitted to add that we have seldom passed a more agreeable day, or made a more pleasant visit than we did to the four shops in that village. On our return to the city in the evening we found at the ferry the ubiquitous 'baggage smasher,' spoken of in our June 'Chip Basket,' very busily employed in fleecing the green ones among our fellow travelers, but we were glad to think the victims did not belong to *our* craft, otherwise they would have gathered wisdom enough from these pages to 'beware of the dog.' Hoping at a future day to renew our acquaintance with the craft at Jamaica, I remain

Yours, very Respectfully, EZRA M. STRATTON.
New York, July 5th, 1856.

For Saladee's Magazine.

MORE ABOUT AXLETREES.

MR. SALADEE—*Dear Sir:*—In a communication published in the March No. of the Magazine, on the subject which heads this article, I noticed an error which should not be indulged in. Your correspondent says that "if the wheels do not dish alike," the difference should be provided for in making the space between the *shoulders* of the axle, *shorter* or longer as the case may require. Experience, however, has taught me, that the much better way is, to make the shoulders of the front and hind axle precisely the same distance apart, and sett *both* axles alike, that is, for a plumb spoke. This, it will be observed, imparts a mechanical advantage to both the wheel and the tire; the spokes being perpendicular, the tire of course rests horizontally on the plane. The wheels to run correctly and track, require precisely the same dish front as back, or vice versa. It matters not as to the *height* of the wheels, though the front ones were but two feet and the hind ones five feet, so they are dished alike.

Should it be found after inspecting a sett of wheels that have just been hooped, that one or more of them have a little too much dish, there is a very simple process by which the wheel can be straightened without removing the tire. Take up the wheel and lay the face edge of the tire on the anvil, and strike the opposite edge with the hammer all the way round, by which means the tire can be drawn so as to effect the dish of the wheel from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch.

It is rather surprising that so many among us seem to be totally ignorant of the most simple mechanical rules for making an axle properly. Many are perplexed in this task, for the want of knowing

how long to make an axle in order to get any desired width of track, and for the benefit of such allow me to suggest the following very simple mode. Let us suppose we want our wagon the New York tread (4 ft. 8). Take from the 4 ft. 8 the length of one hub, say 7 inches, which leaves you 49 inches from shoulder to shoulder. Now, as the spokes are invariably placed in the centre of the hub (between ends) and as the wheel stands on a plumb spoke, when applied to the axle, you will have the wheels to track on the ground 4 ft. 8 from centre to centre of the felloe; but if you want the track 4 ft. 8 from outside to outside, you have only to make the space between the shoulders on the axle the width of one tire *shorter* in addition to the deduction of the length of hub as before shown.

This rule will be found to work correctly to any measure of track, and those who have never adopted any regular system in this branch are requested to give it a trial.

Yours, truly,

S. M. W.

NEW HAVEN, Conn.

Painting Department.

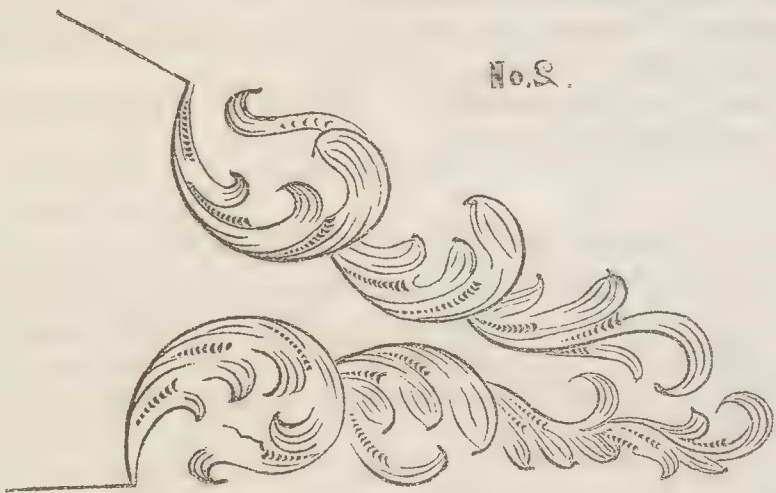
PAINTING—BY A PAINTER.—NO. 7.

The following are the cuts referred to in my last article.

No. 1.



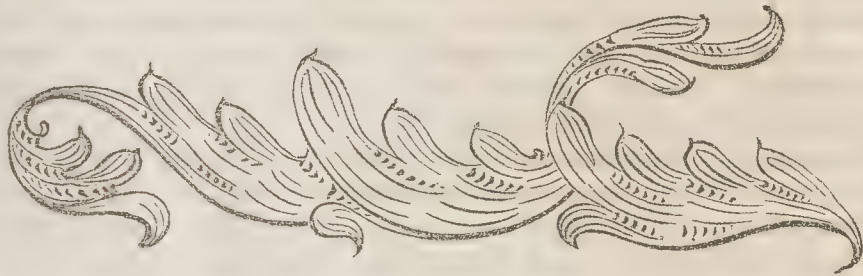
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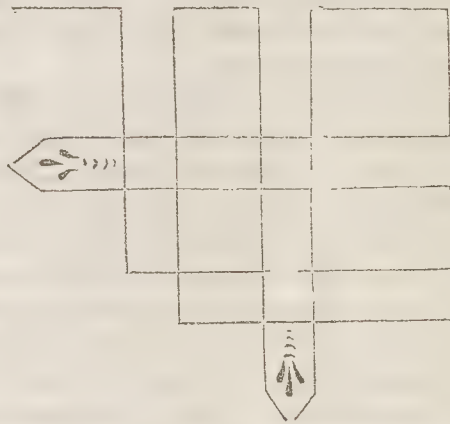
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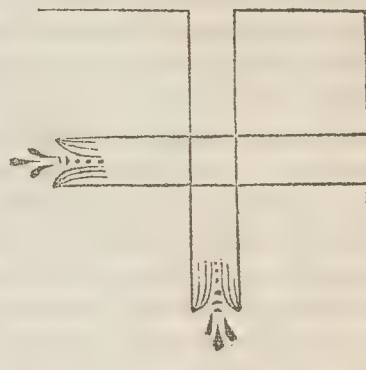
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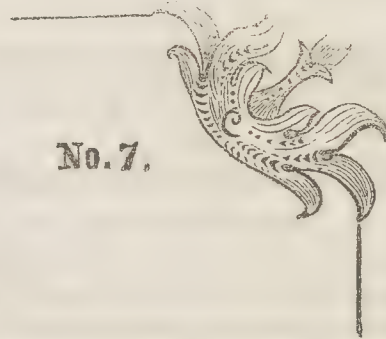
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No. 5.



No. 7.



ORNAMENTING.

Ten or twelve years since, in the eastern States especially, a carriage was scarcely considered finished unless there was an ornament on the panels, and no matter how superior a workman one might be, unless he could use the ornamenting pencils, he would be rated as only just tolerable. Seemingly, the European nobility or their vehicles had transported themselves to this side, judging by the crests and heraldic designs, glittering on the sides of almost every carriage. The commonest kind of work, even buggies, were favored with a mail clad arm grasping a sword, or something as ludicrous.

Gradually this fashion died away, and left the fancy flourishes to the omnibusses and coaches, and of the myriads of vehicles in use, seldom could an ornament be seen to designate what Mr. "So and So" was the proprietor. Since '52 the taste for ornaments has again been awakened, but with much more taste. Every one will agree that a neat and appropriate design adds to the beauty of a carriage, as, a wreath or group of flowers, on a family carriage, or a dog, deer or other animal, on light work, such as hunting wagons, buggies, &c., while the idea of the "Earl of Lobsouse" or "Count de Frigfrog's" escutcheon blazoned on the panels of our carriages is laughable, and in very bad taste. Many who may read this, will recollect the time I refer to, and remember some of the designs that disfigured the carriages of that day; large festoons of crimson drapery, surmounted with crowns and shields, dazzling with their wealth of gold leaf and flashy colors. Of late, however, the taste displayed in the ornamenting of carriages, reflects credit upon those engaged at it.

To be an ornamenter, requires two very important qualities, viz. taste and talent; without the first of which, it is unreasonable to suppose, that a person, engaged in any artistic (or indeed any other business) occupation can succeed. They may possess great talent, but the lack of the proper taste to properly display it, must prove a stumbling block to their success, and it is indisputable that very few mechanical trades offer a larger field for the use of these two qualities than that of a carriage painter. A tolerable knowledge of the principles of "shading and perspective" is necessary, to obtain

the mastery of which, but very little study and perseverance is requisite. A good set of pencils is difficult to procure, but in no particular ought the painter or varnisher who wishes to insure superiority in the execution of his work, to be more circumspect than in the choice of his brushes and pencils.

The pencils I should recommend for use, are those manufactured with tin holders, which are superior to those with quill holders, from the fact that often when a pencil has just got broke in, by negligence when cleaning it out when done using, the quill splits and the hairs spread, and very seldom can the hair be inserted in another quill as neatly as the original. Those in tin holders are generally too short, but this can easily be remedied by the use of a sharp penknife, drawing it around the tin at the spot you wish to remove, a few times carefully, then working it to and fro, which causes the piece to break loose easily. In choosing pencils a very simple trial will prove whether or not they are fit for your purpose. You have only to put them in your mouth, and after wetting them a little draw them out between your tongue and upper lip; then, if they present a sharp point and the hair comes out full next to the case, and without separating, the pencils are good; but should the hairs show ragged, or are thin at the end opposite to the point, they cannot be depended upon. The sharpness of the point is of particular consequence in small pencils. The length of the handle of a pencil should never be less than eight inches, and indeed, the greater the length, provided one can handle it with freedom and certainty, the better, for it is just as impossible for a painter to have a good command of his pencil, as a writer of his pen, if he holds it too near the point. Some use their left hand to rest the weight upon while ornamenting, but the using of the "moll stick" is much better, for often the hand may be soiled, and coming in contact with the work disfigure it, and in warm weather the sweat of one's hands makes this disagreeable. The stick is made of a straight piece of wood, round, about two feet in length, with a knob at one end of it resembling a painters' ball, but smaller, made by enclosing some cotton in a piece of chamois. Resting this end lightly on the work and the other end being held firmly by the left hand, renders it a support to the right. The use of the stick is peculiarly serviceable to those who are any ways nervous, as it renders the hand steady, in a great measure. The palette is the next requisite; those of an oval shape are preferable. When new, the grain of the wood not being filled up, renders them liable to retain the colors that have been used on them, and on again being used, the color is loosened, and intermixing with others spoils them; this can be obviated by giving them two or three coats of varnish. When setting down, as is most usually the case, it should be set on the knees instead of being retained by the thumb hole, in the hand, while your pencils and other materials are placed at the right hand side on a stool or box. The custom for mixing colors for ornamenting is almost entirely abandoned, since the introduction of the "artist colors" or "tubes." These are much superior, and the cost of them is trifling, compared with the time taken to grind the various colors that one uses. Mr. Dechaux of New York, manufactures the best tube colors to be found, although some prefer the London brand of Poulard. The carmine that is in the tubes is the only color that I object to on account of its thickening or forming into a stiff jelly, totally useless for painting. The best plan is to grind a small quantity in raw oil keeping it in a thimble or small vessel, adding drier when using it. This is the only plan to prevent carmine from jelling. For ornamenting, japan as a drier should never be used, as from its dark color it renders many otherwise bright colors dark or muddy when used with them. In every case sugar of lead—that in tubes—is the best; besides drying the colors faster, it has the advantage of being perfectly colorless. In putting on ornaments it is necessary in almost all cases to have the outlines of the ornament visible. Some take the drawing or picture and puncture it with small holes with a needle, and then use the "pounce bag," (some whiting wrapped in a piece of muslin) placing the picture against the spot where the ornament is to be placed. Others adopt the custom of a piece of paper saturated with oil and lamp black, placed between the work and the drawing, and tracing the outlines with a sharp stick or pencil; but in my estimation the best plan (especially when gold leaf is to be laid on) is to use the "pounce bag," merely putting it on the work and placing the drawing over the spot, using the tracing stick; then take a duster and brush lightly. This, it will be found, is sufficient to leave a distinct impress-

ion of the outline behind. The following designs—some original, others borrowed—are exclusively designed for light work, such as buggies, &c.

Instead of describing the various plans adopted by others, I shall proceed to give my own plan of proceeding. If gold leaf is to be used, I first use the sizing, and lay the leaf, and proceed to give every other part a white size (made of dry lead, a very small quantity of japan and turpentine). For a gold size I invariably use one part chrome yellow and two parts English varnish, adding a small quantity of sugar of lead. This size will dry sufficiently to lay the leaf in fifteen minutes, and in a long practice I have never found it to crack or peel off, as two-thirds of the gold sizes are apt to do, but I should not recommend it where the work was to be exposed to the weather unprotected with varnish over it, as is the case with store signs and other out door work. The white size will dry in a few minutes, and takes hardly any time to put on, while the advantage of so doing will readily present itself to any one at the first trial, as the colors used will show more vivid and pleasing than when they are placed on as dark a ground as the bodies are generally painted. In the painting of animals especially is this plan necessary, to produce the dark or dun colors, such as the spots on the dog, &c. I have seen painters labor for an hour unsatisfactorily to get the color that Terra Seinna (burnt) painted on the size will produce, and for flower work it is the easiest plan. Carmine, painted over the size produces all the richness and exact tints of the base. Vermillion, emerald green, and in short any other color will show to greater advantage when laid on over the size.

For Fig.'s 1 and 2 I would remark the cushion or rest below the dogs looks best, when, for fig. 1 white for the upper, and a lead color for the lower half is used, and for fig. 2 vermillion and carmine; when the spots are desired of a very dark shade, Vandyke brown is the proper color to use, but does not produce as pleasant a color as burnt Terra Seina.

But I am overstepping the limits of this article, and shall defer further remarks until my next.

B. McCRACKEN.

TRIMMING DEPARTMENT.

MR. SALADEE:—Owing to a severe and prolonged fit of sickness, I have been deprived of the pleasure of contributing any thing to the trimming department of the Magazine, but hope to be able so to do in time for the next No.

Truly yours,
GEO. D. McLANE.

EDITOR'S TABLE.

AUGUST, 1856.

A carriage-maker of Pittsburgh writes us as follows in regard to our proceedings with the Sprout Spring. It is highly interesting:

PITTSBURGH, June 19th, 1856.

MR. SALADEE:—I trust you will not think me impudent or disrespectful towards you or your very interesting journal, when I express my utter surprise in finding a man (in whose good judgment I have so much confidence as in that of your own) so heartily indorsing an improvement which *has* and in my opinion *must* prove a failure.—I mean, Sir, the Sprout Spring. How it is that you have been so far misled as to recommend that spring in the terms you are doing, is a secret best known to yourself.

Five years ago, or near about that, those springs were introduced and manufactured in this city, and not *one single sett* rendered satisfaction and furthermore I have altered several buggies which had those springs on, by substituting the old and *never failing* elliptics. In view of this, then, it does seem a mystery to me that this improvement has found such a prominent place in your *estimation*. I would not take them as a *gracious gift* and apply them to my work. You are heartily welcome to make any use of the foregoing you may see proper; and believe me Sir,

Yours, in friendship,

Since our indorsement of the above stated improvement seems to embarrass the mind of this worthy brother so much as to render our

proceedings therein a *mystery*, it is due him (and all others of the same excitable temperament) on our part, to attempt an explanation, and which we will most cheerfully undertake.

"Five years ago," says our correspondent, the "Sprout Spring was introduced and manufactured in this city, and not one single sett rendered satisfaction." We look upon this bare faced assertion with the deepest feelings of pity for the unfortunate author, for the reason that it leads him to a most shameful exposition.

One of the *meanest* characteristics in a man is that of attempting an explanation of any subject with which he is wholly unacquainted, and *if* acquainted, and *wilfully* misrepresents it, we fail to find a word in the English lexicon that is deep enough in its meaning of *contempt* and *cowardice* to express the *meanness* of such an act.

And here we feel called upon to state, in justice to the inventor of the Sprout Spring, and a truth loving public, that our correspondent has either *ignorantly* or *wilfully* misrepresented the improvement just mentioned, for we do know that every spring, with but a very few exceptions, that was made and applied to carriages in Pittsburgh five years ago, are *still in actual use*; so he is at liberty to choose which horn of the two his sense of *honor* may dictate; but it is impossible for him to escape both after committing himself as he has done. Had our friend confined himself to "the truth, the whole truth, and nothing but the truth," he would have made a statement something like this, (which after all would not have been *news* to us) viz: About five years ago, when the Sprout Spring was in its infancy and a state of imperfection by reason of improper shape and proportion, it was introduced in Pittsburgh, and a gentleman there engaged to manufacture them; but owing to a want of the proper facilities, they were executed in a very inferior manner. A number of setts were applied to carriages, many of which rendered entire satisfaction, notwithstanding their imperfections, and others failed. This, we repeat, would have been the truth; and yet if it had been a fact that every sett of springs applied five years ago, proved an utter failure, as our brother would have us believe, we cannot conceive by what rule of justice such a statement could reflect the least discredit upon the spring as it now is, unless indeed, it can be made to appear that no improvement has been introduced in their construction since that time.

If we would apply the same rule (by which our correspondent condemns the Sprout Spring, and declares that he would not take them as a gracious gift) to himself as a carriage builder, it would be the most easy task in the world to show that the carriages he is now building would be a cheat as a gracious gift. Why? Because, some years ago he made work of which every or any good mechanic ought to be ashamed, and yet it reflects no discredit upon him or his work at the present day; but why not? Answer: because some years ago he was an apprentice, or in the infancy of his trade; he did his work, doubtless, as well as he could, and when done was as good as could be expected, all things considered, still it was inferior work. But why? Simply because he lacked experience and a thorough understanding of the mechanical principles to be observed in his occupation. But thanks to that noble faculty with which his Maker endowed him, the capability of improvement, we find the hopeful youth progressing in his trade, improving in his work, and in a few years lo! and behold! we find him a master workman, established in Pittsburgh, and with a reputation of producing as good work as any manufacturer in that country. And just so it is with the Sprout Spring when in its infancy; when first made and introduced, it was found imperfect, but it should be remembered it

was capable of improvement, and that it is not to-day what it was five years ago. This spring is now brought to a state of perfection that will favorably recommend it to every coach-maker who is desirous of giving his customer a most easy, light, and durable carriage. Hence it is that we have so heartily indorsed it.

A NEW WAY TO PRESERVE LIFE.

We have now on our table a document sent us from Baltimore, containing the illustrations and a very glowing explanation of a "Life-Preserving Harness," patented by Geo. Yellott, and Sam'l Hunt, July 11, 1854. The invention consists in having the harness so constructed, that by the pull of a strap extending from the back-pad or saddle to the dash, the horse is instantly stripped of all the harness, save the collar, bridle, and lines.

Every day brings us the news of some discovery which in part enables us to realize the great fact that we are living in an age of wonder. Under the head of "Probable value of the Patent," we find the following speculation:

"Every man who reads the newspapers must be aware that hundreds of accidents are almost weekly occurring, particularly in the vicinity of our larger cities, from the running away of vicious, badly broken or frightened horses. Many of these accidents are fatal, and thousands of persons can number among the victims of such accidents, some friend or acquaintance. The construction of railroads, frequently crossing the turnpike or country roads, has of late years greatly added to the dangers of buggy or carriage driving. In passing through the suburbs or streets of a city, there are other causes of alarm to the scary horse which are to be met with at almost every corner.

To one who has ever been seated behind an unmanageable horse, it is needless to explain the value of a discovery which would enable him at pleasure to free himself from the danger of his position. Present to him an invention of the kind, and he will never ride again without having the advantage of it, whatever may be the extra cost. If he keeps a horse of his own, he will buy a set of Life-Preserving Harness forthwith; if he hires a horse and buggy, he will patronize no livery stable where that harness is not kept.

Congress has by a solemn statute compelled every passenger steamboat to carry its complement of life-preservers. If all the accidents from horses which occur in the United States in any one year were summed up, it would appear that the loss of life resulting from them is as great as from steamboat accidents. What Congress has by law compelled to be done in one case, the instinct of *self-preservation* will compel to be done in the other; the traveler by horse power as well as the one by steam power, will seek the protection of a Life-Preserver.

In large cities where so many are in the habit of driving hired horses, with whose habits they are unacquainted, the new kind of harness could not fail to be adopted by all who kept horses and buggies for hire, because a preference would always be given to such as furnished their customers with the means of safe driving.

The appearance of this harness is very similar to the old kind, though more ornamental. It can be made for about the same cost, the difference being not over five dollars per set, after including \$2 50 for the patent right.

There will be no competition, because, unlike many other inventions, there is *no substitute* for the Life-Preserving Harness. This invention is as thoroughly "new" as it is "useful." It is the first discovery ever made by which a horse in motion can be instantly detached from his harness, at the will of the driver.

Other inventions, it is true, have been made for detaching the horse from the *buggy* or *carriage*, but these can never be generally adopted, for the reason that a single detachment of the horse is almost sure to cost the driver his value, as the animal carries the shafts or swingle tree with him, which either cripple him, or render him ever afterwards unfit for buggy driving.

For the reasons above stated and many others which might be suggested, we think the invention must be speedily adopted into general use. If so, the next inquiry will be, what is the *probable value* of the patent?

The answer to this question will depend very much upon the

number of single pleasure carriages in the United States. We have no means of stating the number with precision, but from the statistical tables published in the American Almanac, for the years 1846, 1850 and 1853, we are enabled to present a list of the total number of pleasure carriages, buggies, &c. in four states. The following table shows the names of the states, the years in which the carriages were assessed and the population of the states in the year 1850.

Year.	States.	Population in 1850.	No. of carriages, buggies, &c.
1844	Ohio	1,980,408	14,997
1848	Iowa	192,214	5,298
1848	Virginia	1,421,661	19,627
1851	Kentucky	982,405	8,147
		4,576,688	48,069

If we take these states as a fair average, and calculate that the number of carriages in the other states bear the same proportion to their population, it will be found that the total number in the whole union in 1850 was over 243,000. But it must be remembered that the estimate for Ohio was made ten years ago, and for Iowa and Kentucky six years ago; and if we make proper allowance for their subsequent increase of population and consequent increase in carriages, it will certainly be a moderate estimate to say that the number of carriages, buggies, &c. in the United States at the present time (1854) is at least 300,000. Suppose that the life-preserving harness is purchased for only *one-sixth* of these, or 50,000, and that the charge for patent right is placed at \$2 50 per set, we have an aggregate of sales of patent rights of \$125,000. But it must be borne in mind, that harness for vehicles of this kind requires to be renewed about once in four years—or at least *three times* in fourteen years—the duration of the patent. We must, therefore, place the gross sales of the patent rights at \$375,000. After taking off one-third for contingent expenses, advertising, compensation to agents, &c., there would still remain a net sum of \$250,000.

We have endeavored to be moderate in these figures. If they appear large, we beg leave to remind the reader that as large amounts have been realized from patents of not near such general importance; and that our figures in the above calculation are based upon the supposition that only *one-sixth* of the carriages and buggies will adopt the new kind of harness, when it would not have been unreasonable to have said that it would probably be adopted by at least *one-half*. We have also calculated upon the present population of the union, which must be increased many millions before the expiration of the patent.

Every man, says the inventors of this life-preserving institution, who has read the newspapers, *must* be aware that *hundreds* of accidents occur almost weekly from horses running away with carriages, and many of them prove fatal. For *one* we have read the news quite extensively, and it is still our every day practice, but we have never yet seen those papers (except the one above quoted) that furnishes any such extravagant account of mishaps from such a source. But suppose double the number of accidents above mentioned occurred daily from run-away horses, will such a harness prevent them?

We are somewhat astonished to see that men, professing to be blessed with the least degree of modesty and common sense, will exhibit so much of the "long-eared tribe" as to publish such a string of ridiculous nonsense as that which we have just quoted. These gentlemen will find it a difficult task to convince any one that an "ungovernable carriage" going at the ordinary running speed, will make a good life-preserver. As for ourself, we have driven all kinds of horses, and some *very* bad ones, and we have never yet seen the time when we would have considered it a life-preserving operation to detach the horse from the vehicle while he was attempting to run away; for in almost every instance the locality of the road is such, that the moment the horse is gone the carriage would be instantly upset for the want of something to govern it.

We could give many satisfactory reasons why such an invention should never be countenanced, but as we gave our views upon this subject in the April No. of the Magazine, it is unnecessary here to repeat them. It strikes us very forcibly that if Congress would by a solemn statute compel *every* passenger carriage to be furnished with this life-preserver, there would be more necks and limbs broken than was ever before known by the accidents of all the land vehicles put together. We therefore conclude it will be after this day and generation when the public will be willing to pay \$375,000 for the patent right of such a contrivance.

GREENFIELD, OHIO.—Some days ago we had occasion to visit the above mentioned place, where we had the pleasure of making the acquaintance of Messrs. Daniels & Son. The senior partner of this firm has been engaged in the carriage business in his present location for over twenty-five years, and is now doing a very flourishing business. It is but justice to Mr. D. to state, that we were never more agreeably disappointed than on inspecting the productions of his factory, which we found were executed in the most fashionable style and in strict accordance with good taste. Work as neatly finished as we here saw, is by no means an every day occurrence in country places.

SLEIGHS.—The fashion plates in our next No. will be wholly devoted to the illustration of sleighs and cutters of various kinds and styles. We have now on hand a very extensive collection of designs which were sent us by our kind patrons from all parts of the country, where the sleigh is employed as a vehicle of pleasure, and from them we expect to cull a variety that will be generally approved of by that class of manufacturers who will be engaged in building them.

Messrs. Royer, Simonton & Co., of Cincinnati, Ohio, are undoubtedly the most extensive carriage wood and wheel manufacturers in the United States, and we doubt whether a more extensive establishment of the kind can be found in all Europe. We are proud of this, since it furnishes another evidence of the fact we have before advocated, that coach-making has become a mighty business in this country. And yet it should be remembered that men of the Royer and Simonton stamp are the ones who have contributed much to make it so.

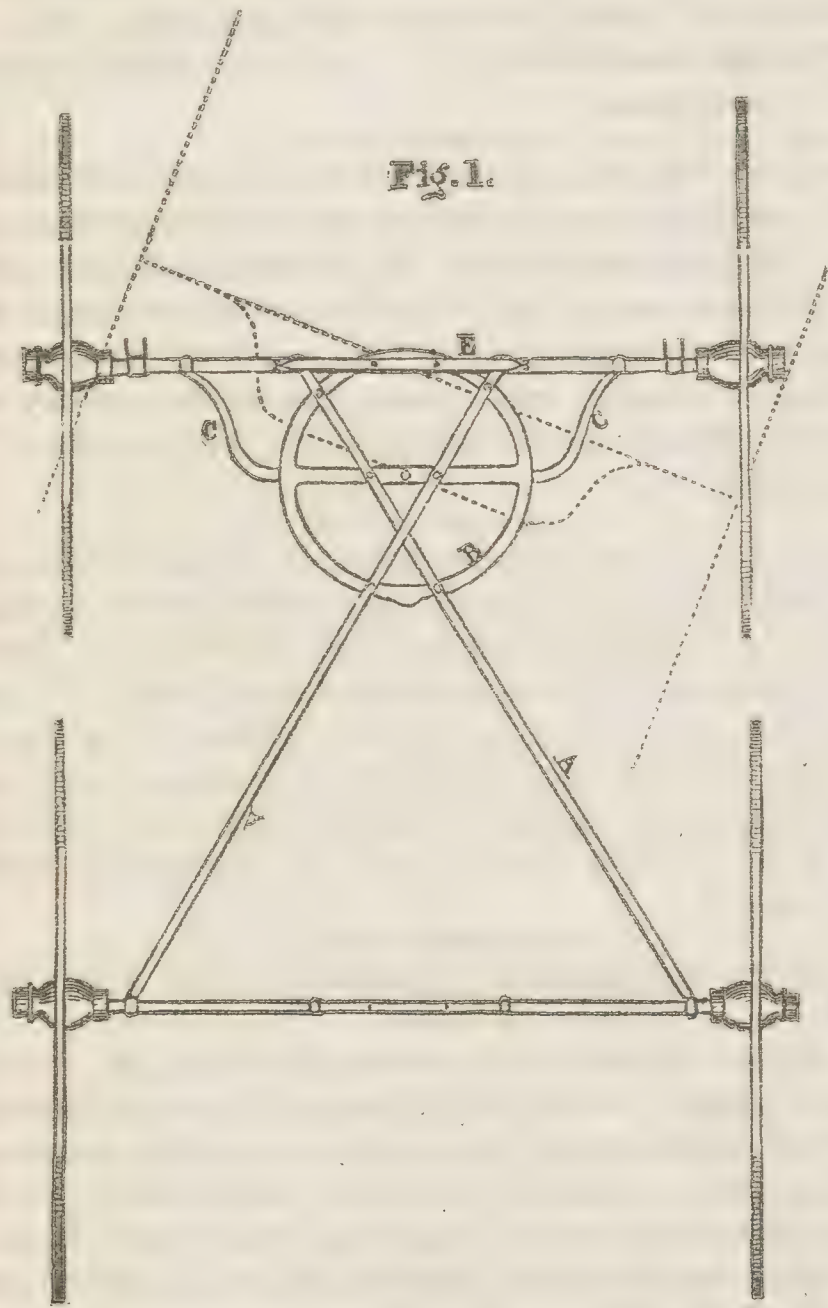
SALADEE'S IMPROVED CROSS-COUPLING FOR CARRIAGES.

For the last eighteen months we have been using the Everett Patent Coupling to some of our vehicles, and the various imperfections which manifest themselves in its use, prompted us to attempt the design and construction of another *class* of coupling, that would be more simple and less liable to get out of repair, likewise to obviate all the objectionable features of the one above named, and yet retain all the advantages claimed for *that* or any other of the couplings patented; and in which attempt we are proud to say we have succeeded beyond our most sanguine expectations.

The objections to the majority of patent couplings now in use are briefly as follows: First, the "king" or "coupling bolt" being placed so far in the rear of the front axle, renders the vehicle very *unsteady*, and moreover gives a contrary direction to the hind wheels, and therefore not easily governed. Second—all patent couplings (Verleger's excepted) are so constructed that a part of the friction surfaces of the segments or circles on which the front spring rests, is continually exposed, and those parts being oiled to diminish the friction they create, do, as a matter of course, retain all the dust

and dirt which falls upon them, and thus they are made to work *hard* and *rough*, and a heavy strain is thrown latterly upon the centre perch and the coupling bolt passing through it. The evil here referred to, is, however, greatly magnified, when the vehicle is run on a soft and muddy road, in which case the mud is being continually thrown upon the exposed surfaces of the friction plates before mentioned, and is carried in between the segments and in many cases so clogs them up as to strain or break them, and especially is the latter to be feared in frosty weather, when the mud freezes as it falls upon the parts described; and third, their complication and additional expense to the manufacturer.

If these objections can be overcome in the construction of a coupling, and at the same time retain the very desirable advantage of turning short, it is destined, in our opinion, to be one that will meet the universal approbation of the craft, and such a coupling we now have, and will here present it to our readers for inspection, after which we shall be happy to hear the opinion of as many of our friends as may feel disposed to write us, and not only so, but we would take it as a special favor.



The above engraving (Fig. 1) is a correct representation of our "Cross Coupling" for *short turning*, and Fig. 2 represents the same coupling applied to the ordinary carriage, with the king bolt through the centre of the fore axle. For the construction of Fig. 1 we take two straight pieces of wood, A A, the required length for the body, $1\frac{1}{2}$ in. square, and after crossing the same and lapping them into each other at the *crossing point*, we frame the front ends into the head block, E, by means of tenon and mortise, after which the other ends are connected with the hind axle in like manner, or clipped on, as may be preferred. We then make a 20 inch circle, B, and bolt to the under side of the cross perches and head block,

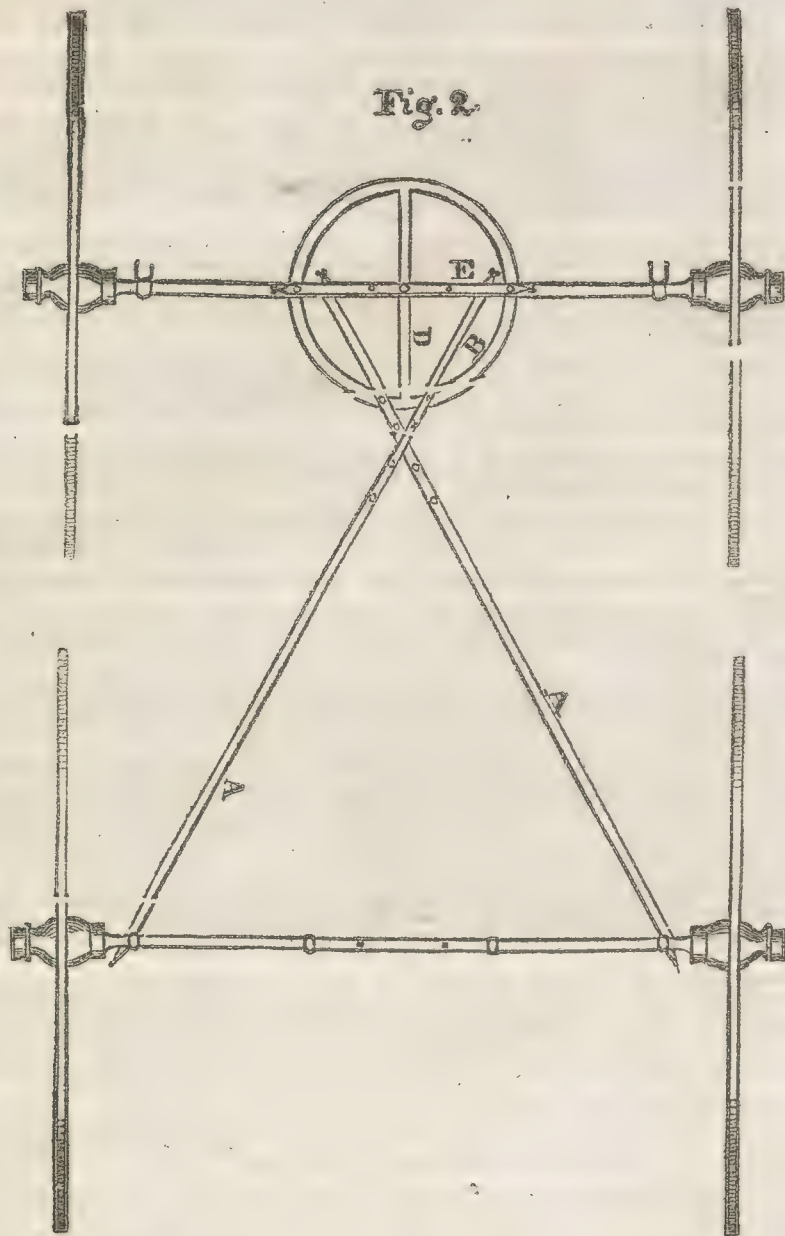
so that the centre will be 9 inches in the rear of the front axle, as shown in the drawing. Another circle of the same diameter is then made and bolted on the front axle, and supported by the projecting rods C C, when the two circles are connected together by one $\frac{1}{2}$ inch centre bolt. Thus the turning point is thrown 9 inches in the rear of the front axle, and has the advantage of that space in turning. The vehicle would of course turn shorter if the centre bolt was placed still farther in the rear, but experience has proven to us that when the bolt is placed farther back of the axle than 9 or at most 10 inches, we cause a disagreeable horizontal motion in the front extremity of the body, and furthermore lose, in a great measure, the control of the carriage.

It will be observed that as our fifth wheel is a *double circle*, the friction surfaces between the two are never exposed, and as one protects the other the dust and mud is effectually excluded. We have also introduced a new feature in the fifth wheel itself, viz: in the under circle we have a groove about $\frac{1}{8}$ in. deep, and $\frac{3}{4}$ in. wide, on the top or friction surface, in which is laid a circle of leather about $\frac{1}{4}$ in. thick, and on both edges of the top circle, the whole way round, we have a projecting lip or flange, which, when the two circles are laid together, entirely covers the under one, and thereby hiding the point between them. By this simple arrangement (the fifth wheel being malleable cast) we exclude dust and mud, also prevent rattling. These fifth wheels as above described, can be furnished, already fitted, with connecting bolt and all complete ready for use, at about \$2 each, or \$10 per doz., to which add the cost of one doz. bolts, and we have the entire cost of materials for the whole connection between the two axles. It is not only a saving in material, but likewise in work. To be fairly understood let us make a comparison between the cost of constructing a gearing on the old plan and one on ours, and first the old plan.

It will require at least (for an ordinary carriage, fifth wheel and all) 60 lbs. of iron of the first quality, 7 cts,	\$4 20
Iron work of circles, stays, &c.	7 00
Bolts, say	75
Total cost of coupling	\$11,95
The Cross Coupling:—	
Fifth wheel with all its connections	\$2 00
Bolts	75
Iron work which can be done in half a day)	2 00
Extra expense in wood work, or one extra perch	75
	\$5 50

The above calculation, which is as near correct as figures will make it, shows over one hundred per cent. in favor of the cross coupling, besides it is *lighter*, and certainly *more substantial*; moreover it will cause the carriage to follow the horse with more steadiness than any other coupling with *centre perch*, for the reason, that when either of the wheels of the coupling with centre perch—no matter how well ironed or stayed from the rear axle—comes in contact with an obstacle in the road, or falls abruptly into a deep rut or cavity, a great strain is thrown upon it, and it will be found to vibrate laterally from 1 to 3 inches, consequently the hind wheels do not follow the front ones in a straight forward line as they should do, to run perfectly steady. But where there are *two perches*, and these *crossing* each other as shown in our illustrations—it matters not which wheel receives the concussion of the obstacle—it is met *directly* by the bracing position of the perches, nor can the shock in any way affect the relative position of the hind axle with the

head or spring block, since it is impossible to give the perches a lateral vibration.



Where the placing of the king bolt in the rear of the front axle is objectionable, a double circle of any diameter can be employed in the old way, and the cross perches applied as shown in Fig. 2. These perches can be bent to suit any shaped body, in which case, however, they would require to be ironed top and bottom, in order to retain the shape you intend them. When the point of crossing comes in the rear of the fifth wheel, as in Fig. 2, a light iron plate should be bolted on the bottom side, to secure the lap joint.

Those of our friends who approve of this coupling, and would like to see it in practical form, can apply it to a buggy for that purpose.

WOODBURN & SCOTT, ST. LOUIS, MO.—We find that the above gentlemen are very extensively engaged in the Hub, Spoke, Wheel and Felloe enterprise in St. Louis, and from specimens of their productions (which we have seen) we cannot do less than recommend them to the favorable notice of the fraternity. See their card in this No.

UPDEGRAFF'S BENDING MACHINE.—We are receiving a great number of inquiries respecting the utility of this invention, and in answer we have only to say, that by those who have and are now using it, it is considered far superior to any other bending machine now used. We would therefore recommend it to the favorable notice of all those wishing to purchase a machine of this kind.

The oldest establishment of the kind in the United States, and doubtless the most extensive, is that of Charles Pearl, of Poughkeepsie, N. Y. See advertisement as it appears in this No.

Contributors to this Number.

- "OMNIBUS TRAVELING IN N. Y. CITY," E. M. Stratton, N. Y.
- "EDITORIAL CORRESPONDENCE,"
- "HISTORY OF CARRIAGES AND CARRIAGE-MAKING,"
- "PAINTING BY A PAINTER—No. 6," B. McCracken, Mo.
- "THE CARRIAGE—ITS OPERATIONS," W. Wilson N. Y.
- "MORE ABOUT AXLETREES," S. M. W., Conn.
- "SALADEE'S IMPROVED CROSS COUPLING," The Editor.
- "THE BRITISH BUGGY," Sanders & Richardson, Sheffield, Eng.
- "EXTENSION TOP PHAETON," A. A. Miner, N. Y.
- "THE DENNIS BUGGY," Dennis & Co., Conn.
- "THE HEARSE," The Editor.

NOTICE.—Mr. Abr'm Terrill, and G. N. Dexter, agents for the Coach-Makers' Magazine, are authorized to sell rights of Verleger's Patent Carriage Coupling in the States of Ohio and New York. Ridgeway, Deihm & Huffman, assignees of the said Coupling for the States of New York, Pennsylvania, New Jersey and Ohio. Pottsville, July 15th, 1856.

BROWN'S PATENT C SPRING BUGGY.—We are informed that Mr. Brown, of Dorchester, Mass., is now doing an extensive business with his patent buggy. He is receiving orders from every direction for light wagons with his improvement applied. These buggies, gotten up as they are made by Mr. Brown, are certainly a superior article in the way of light work. We shall give improved illustrations of this buggy in our next No. if we can succeed in getting the sketches in due season.

CARRIAGE PROPERTY FOR SALE.

The undersigned wishes to sell his carriage property. His shop is brick, the largest and best arranged building of the kind in the State; the location the best in the Western country. My sales amount to from \$25,000 to \$30,000 a year. I have no competition in the place; I have a good stock of timber and other materials of all kinds, all of which I will sell on reasonable terms, and take one-half my pay in buggies and carriages next season. Possession given immediately if desired. For further particulars address or see A. F. WOODCOCK, Rushville, Indiana.

When any accident occurs on the Railroad by the carelessness and improper management of those having charge of it, we are always assured it was "purely accidental."

There was no blame in any one—
No fault could be detected;
There was no charge of carelessness,
No caution was neglected.
Though broken limbs and brains knocked out,
We own are detrimental,
Such things, alas! will come to pass,
They're purely accidental.

A second train despatched, while yet
Scarce out of sight the last one;
The first a wood train, lumbering slow,
The one behind a fast one.
The first train stops, the next comes up;
When both to smash are sent all;
Who could foreknow 'twould happen so?
Its purely accidental.

Our signal says: 'Go on—all right!'
Another, 'S'op—here's danger!'
The driver knows not what to do,
He's on the line a stranger,
But he'll soon find out which is right—
By means experimental,
So dashes past both first and last—
He's smashed—'twas accidental!

The drivers who are overwork'd,
Sent out to work half sleeping,
And trains delay'd till they've no chance
Their proper time of keeping.
And station-master not o'er blessed
With faculties called mental—
All show, we trust, 'hat collisions must
Be purely accidental.

"PADDLE YOUR OWN CANOE."

The following beautiful lines should be committed to memory by every young man who has a desire of rising to distinction in his trade or profession. They are worthy to be set in letters of gold in pictures of silver. If you expect to ride safely and triumphantly upon the ocean of life, trust not the guidance of your little bark to the hand of another, but always—"paddle your own canoe."

Voyager upon life's sea,
To yourself be true,
And what'er your lot may be,
Paddle your own canoe.
Never, though the winds may rave,
Falter, nor look back;
But, upon the darkest wave,
Leave a shining track.

Nobly dare the wildest storm,
Stem the hardest gale;
Brave the heart and strong the arm,
You will never fail.
When the world is cold and dark,
Keep an aim in view,
And toward the beacon mark
Paddle your own canoe.

Every wave that bears you on
To the silent shore,
From its sunny source has gone,
To return no more.
Then let not an hour's delay
Cheat you of your due,
But, while it is called to-day,
Paddle your own canoe.

If your birth denied you wealth,
Lof y state and power,
Honest fame and hardy health
Are a better dower.

But if these will not suffice,
Golden Gain pursue;
And reach the glittering prize,
Paddle your own canoe.

Would you wre-t the wreath of fame
From the hand of fate?
Would you write a deathless name
With the good and great?
Would you bless your fellow-men?
Heart and soul imbue
With the holy task and then
Paddle your own canoe.

Would you crush the tyrant wrong,
In the world's free fight?
With a spirit brave and strong,
Battle for the right,
And to break the chains that bind
The many to the few;
To enfranchise slavish mind,
Paddle your own canoe.

Nothing great is lightly won;
Nothing won is lost;
Every good deed, nobly done,
Will repay the cost.
Leave to heaven, in humble trust,
All you will to do;
But if you succeed, you must
Paddle your own canoe.

PRETTY GOOD.—An extensive and wealthy lumberman, in a neighboring county, is the father of a hard nut of a boy. Being very desirous of reforming him, he offered as an inducement to give the avails of the lumber from two thousand hemlock logs, provided he would go to school and behave himself for one year. Young hopeful remained silent for some time after listening to the proposition. Finally, in reply to his father's interrogation,

"What do you say my son?"

Call it pine logs, father, and I'll go it.—*Sandy Hill Herald.*

The Grand Duchess Helen is thought likely to be elected president of the Academy of science at St. Petersburg. There is precedent for the election of a woman to this office. In the days of the Empress Catherine, the infamous Princess Dashkoff sat in the chair of learning and ruled the science with her fan.

PRAISING GOD BY STEAM.—They have a splendid organ in Tremont Temple, Boston. It is one of the first in the United States, and the bellows is worked by steam. This is a novel application of steam power, and it relieves the good people who worship there, from all trouble of praising God. It saves them from the irksome work. They have not even to turn a crank to grind out praise, for it is invoked by the friendly aid of steam. This is a fast age, and what would the good old puritan christians say if they could awake from their graves, and some pleasant Sabbath morning, look in upon their children praising God by steam.

List of Patents granted for improvements in the Carriage Department, for the month ending June 30th, 1856.

FELLIES.—A. B. Richmond, of Pennsylvania: First, I claim the saws constructed as described, so that they may be adjusted at any required circle by means of the set screws, 9, and also constructed as described, with the saw hand, fingers, slots, and set screws combined as described, or any other construction substantially the same.

I do not claim the saws alone, but constructed and with the aforesaid combination, as described.

Second, I claim the contrivance and construction of the platform, I, with the combination of gauges and set screws as described, for cutting the felly the proper length, or any other substantially the same.

Third, I do not claim the bits driven by a band alone. But I claim the combination described, by which the bits for the spokes and dowl pins are made to move towards the felly at the same time or different times, as may be desired, by means of the combination and construction described, or any other substantially the same.

CARRIAGE SHAFT COUPLING.—James D. Sarven, of Columbia, Tenn.: I am aware that the ball or socket or universal joint coupling is old, and that a journal with a spherical enlargement in the centre is old, and therefore I do not claim either the one or the other.

But I claim the improvement upon couplings for carriage shafts or tongues, which consist in enlarging the journal of the shaft iron in the centre so as to form a globular, ellipsoidal or double conical bearing surface, and clamping the same between the clip irons counter-sunk as described, by means of screws, or other equivalent devices, so that the wear is entirely upon the enlarged surface, and all lateral play and rattling of the clip irons are prevented.

I also claim in combination therewith the leather packing, as described, for the purpose of retaining the lubricating material.

ATTACHING HORSES TO VEHICLES.—Geo. B. Kalign, of Lumberton, N. J.: I claim supporting and controlling the ends of vehicle shafts, A A, by means of the loops or tugs, b b, secured to the hames, B B, making the breeching consisting of the band, E, and the adjustable holders, e e or their equivalents, a permanent, and adjustable part of the said shafts; and attaching the back ends of the traces, D D, together at the back ends of the said shafts, so as to bear against and move on the pulleys, a a, in accordance with the forward motions of the horse, the whole described and set forth, and for the purpose of dispensing with the usual saddle, belly bands, crupper, breech supporting straps and whiffletree, and thus facilitating in connecting and disconnecting horses from vehicles, as described.

THREE-WHEELED CARRIAGES FOR CHILDREN.—J. H. Gould, of New York City: I claim the

curved arms, B B, resting upon the arms or bars, A A, forming a support for the body of the carriage, and terminating in sockets both in front and back, for the reception of the arms, C C, D, for the purpose of permitting the carriage to be both drawn and pushed from either the back or front position.

WHEELWRIGHT'S MACHINERY.—A. S. Macomber, of Bennington, Vt.: I claim the jaws E, operated by the screws, H, worm wheels, F, and connecting rods, G, one pair of jaws being attached to an adjustable, bar B', the above parts being arranged as shown, for the purpose specified.

CARRIAGES.—R. W. Benedict, of Brant, N. Y.: I claim the combination of the springs, E, with the springs, F, and concomitant parts, in such a manner that the torsional motion of the body shall affect the spring, F, as described.

COUPLING FOR CARRIAGES.—Harvey Miner and H. M. Stevens, of N. Y. City, and Wm. H. Saunders, of Hastings, N. Y.: We claim a ring of vulcanized rubber or some other yielding and more or less elastic material applied substantially as specified, in combination with a divided eye and a bolt or pin fixed in the clips, or either immovably, or in such a manner that it can be taken out and replaced, the whole being applied to a vehicle, and acting substantially in the manner and for the purposes set forth.

BORING HUBS.—H. L. Mooney, and W. B. Carter, of Astoria, Ill.: We make no claim to the receding of the cutter from the centre of the hub during the progress of excavation.

But we claim the construction of the tool with the excavating and shouldering cutters in separate slide bars, capable of simultaneous outward movement, and relatively so situated that the shouldering cutter is made to perform the double function of cutting the shoulder and holding the tool firmly upon the hub as set forth.

SECURING SHAFTS TO AXLES.—Wm. Cox, of Doylestown, Pa.: I claim the two bars, E F, with the jaws, c e, attached to them; the bars, F, being elastic, and having a screw, G, passing through it, on which a nut, f, is fitted. The bars, E F, being attached to the axle, A, substantially as described for the purpose specified.

DETACHING HORSES FROM VEHICLES.—F. M. English, of Hopkinsville, Ky.: I claim the described combination of pins, P P', with levers, L L', constructed, arranged and operating substantially as and for the purposes set forth.

RUNNING GEAR OF CARRIAGES.—Richard Murdoch, of Baltimore, Md.: I disclaim the short axles and the manner of turning them about their attachments; such construction being no part of my invention.

I also disclaim supporting the extremities of the axles on stationary train ways during their movement.

But I claim the swivel bar c, and boxes, b b, in combination with the short axles, a a, connected with the extremities of the cross bar, substantially as described, operating as and for the purposes specified.

RUNNING GEAR OF VEHICLES.—Henry Phelps, of White Hall, N. C.: I disclaim spring coupling for vehicles broadly considered, as various devices have been employed for that purpose. I claim the combination of the elastic rods, i and m, with the rods, c, c, d, e, jointed at f, as described, and operating as and for the purposes set forth.

TURNING CARRIAGE AXLE TREES.—John Hennon, of Beaver, Pa.: I claim the turning of spindles on axles for wagons, carriages, or all other similar articles, and the rule or principle of ascertaining the lines on the timber, and of finding the centre in accordance therewith, and of so adjusting a moveable centre or slide-point in any common lathe, as to give an axle any desired degree of inclination for the bottom or pitch line, and at the same time obtaining more or less gather at will, substantially as described.

SAWING FELLIES.—David Bowen, of Wadesville, Va.: I claim the described planer clamps, simultaneously adjustable in opposite directions, in combination with the mechanism connecting their case with the saw gate, arranged and operating substantially as and for the purpose set forth.

BRAKE FOR WAGONS.—D. F. Breed, of Fulton, N. Y.: I am aware that a self-relieving break, in backing, is not new, nor is it new to so arrange the gearing that a progressively increasing power is applied in the application of the brake to the wheels. I therefore do not claim to be the first to apply such arrangement of parts as will effect either of those objects. But I claim the combination and arrangement of the revolving blocks, f, rubbers, g, connecting rods, b and d, crank lever, c, and neck yoke, d, for the purposes described.

WHEEL FOR STEAM CARRIAGES.—A. B. Latta, of Cincinnati, Ohio: I am aware that the different parts composing the wheel, have been separately used before, which I disclaim when taken separately. But I claim the combination of the tire, e, angle tire, d, sectional tire, f, cross spokes, B and C, and jamb nuts, 6, for purposes mentioned.

ATTACHING SHAFTS TO VEHICLES.—F. J. Flowers, of Brooklyn, N. Y.: I claim the rod, B, on the goose-neck or bar, A, fitted in the eye, C, on the bar, C, the cap, D, attached to the bar, C, and the nut, E, on the rod, B, the nut, E, having flanches, d, atached to them, and fitting over circular or annular ledges, c, on the ends of the cap and eye, the parts being constructed and arranged as described.

OUR PRINTING ROOMS.

Advertising is one of the grand secrets to success in any or all mechanical pursuits, and the individual who in this age of printing neglects to give that publicity to his business which the times demand, is standing in his own light, between himself and that very dollar for which he is so eagerly contending, and in no branch of mechanism is it more called for than among the coach-makers. Every proprietor who is doing a tolerable business, should have a standing advertisement of his factory with correct illustrations of the different kinds of vehicles he is manufacturing, or prepared to build to order.

Having now over two hundred fine engravings of all the latest fashions of carriages, we propose to furnish each proprietor who is desirous of getting up a good advertisement, with a chart neatly illustrated with the different styles he may select from our stock of engravings, with his card and such other matter as he may desire to have printed in the centre, and the whole enclosed in a beautiful border, which he can have suspended in all public places, and send a copy of the same to any person from whom he wishes to solicit an order for a carriage. What would attract more attention than to send to the livery keeper, into the farmer's family, or indeed to any one who you think would be likely to want a carriage, than one of those charts which at once represents the various kinds of vehicles you can furnish them? Surely nothing; therefore it will be of more benefit than any other way by which you can advertise. We will furnish such charts for from \$10 to \$50 per hundred copies, owing to the size, the number of engravings, number of colors in which they are to be printed, &c. &c. Orders solicited.

OUR DRAWING TABLE.

We have now secured the exclusive services of a carriage draughtsman, who, from his long experience and close application to the art, stands unequalled by any other of the same profession in this country. Having been engaged in all the principal European cities, and for the past year in the city of New York, he has acquired a knowledge of the various styles of carriages among the different nations, which by a few possess, and consequently is capable of representing a greater variety of style in his designs than could otherwise be expected.

From our Drawing Table the craft can obtain a sketch of any peculiar design or fashion for a vehicle, which they may desire to have, aside from what they see illustrated in the Magazine. Almost every mail brings us an application from some part of the country, for a design of a certain kind of carriage, which is peculiarly adapted or limited to a certain purpose or a certain location (and which peculiarity forbids its appearance in the Magazine.) One, for example, wishes a certain style of Band Wagon; another a design for a Peddler's Wagon for this or that purpose; another a Hearse; an odd kind of Coach; and others again, a design on a large scale, for a Factory, &c.; all of which can now be furnished at this Office, on the shortest notice, and on the most reasonable terms.

Drawings executed either plain or colored.

THE COACH-MAKERS' MAGAZINE.

Oldest and Largest Establishment of the kind in the U. S.

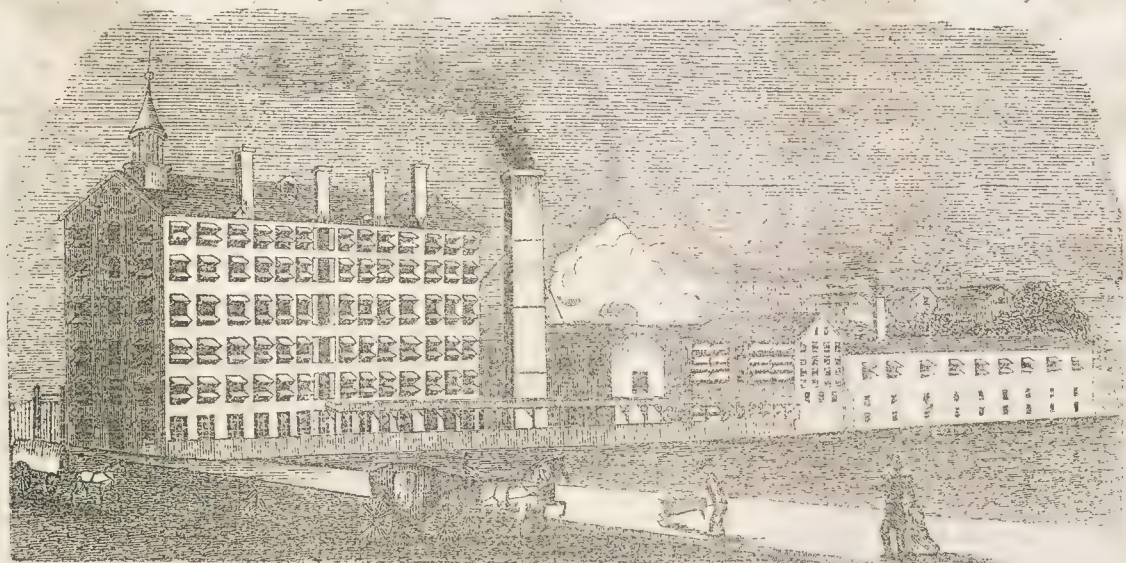


CHARLES PEARL,
BRASS & SILVER CARRIAGE BAND MANUFACTURER,
423 & 425 Main Street, Poughkeepsie, New York,

I AM CONSTANTLY GETTING UP NEW AND TASTY DESIGNS FOR CARRIAGE BANDS, WHICH FOR BEAUTY AND Chastity cannot be rivalled. Any new patterns made by sending me a description of them. Also manufacture the celebrated Princes' Metal Bands. Also manufacture and have constantly on hand a large and well seasoned stock of Bent Felloes, Shafts, Poles, and Turned Spokes of the different varieties of Wood, and Seat Rounds of every style.
TERMS—Six months for approved paper, or five per cent. off for Cash.
N. B. None but dealers supplied.

[Aug-1856]

BAEDER, DELANY & ADAMSON,



MANUFACTURERS OF

GLUE, GELATIN, CURLED HAIR, PATENT RAW-HIDE WHIPS, FLINT & SAND PAPER,
EMERY PAPER & EMERY CLOTH.

STORES: { PHILADELPHIA, No. 10, South Fourth Street, Corner of Merchant.
NEW YORK, No. 225 Pearl Street, cor. of Platt.

OUR GLUES ARE MADE WITH GREAT CARE, OF GOOD MATERIALS, IS UNIFORM, SETS QUICK, HOLDS WELL, AND is not affected by wet or weather. Our Sand Paper (Flint) is made by a new and patented process, of the best Manila Paper, of our best selected Glue, and of ground flint, evenly and well put on. Our Pure, Mixed, and Hog Hair is manufactured with great care, and always uniform.

[Feb-1856]

S. & S. S. CLARK,

IMPORTER OF

SADDLERY HARDWARE

MANUFACTURERS OF

HARNESS, BRIDGING, BRIDLE AND SEATING.
180 Main Street, Cincinnati, O.

June 1855.

A. CAMPBELL,

COACH & SADDLERY HARDWARE
—AND—

SILVER PLATING MANUFACTORY.

No. 13, Light St., Baltimore, Md.

CARRIAGE FACTORY FOR SALE.

At Elmira, Chemung Co., N. Y.

THE SUBSCRIBER HAVING PURCHASED OF JOHN HILL, in January last, his Carriage Factory, and not being able to give the business the attention it requires, offers the property and materials as well as tools and fixtures for sale, at a low value, and on liberal terms. The Factory was built in 1854, and is situated on the corner of Cross and William Streets. The lot on which it is erected is 175 feet by 113. The building is constructed of brick with lime stone caps and sills, is two stories and attic, with tin roof. The building is 114 feet on Cross street, with 80 feet wings; a cellar 80 by 30 feet, stone work laid with water lime and the entire mechanical execution of the building is of the most substantial and durable character; 60 feet of the lot on William street is occupied by a dwelling, and the vacant ground attached can be used to enlarge the manufacturing facilities when required.

Commodious sheds for lumber, two good cisterns, and in fact all conveniences for manufacturing and conducting an extensive carriage business is embraced in and about the premises. Every facility is afforded to forward work from Elmira, there being Canal communication with Chesapeake Bay, New York, and the West, and Railroad communication East, West, North and South. Coal, Iron, and all the materials used in the construction of carriages can be concentrated as low at this point as at any place within my knowledge. There is a regular custom business to the stand of over \$20,000 per annum, which can be increased to an almost unlimited extent.

To any one wishing to engage in the business this establishment offers a splendid opportunity, as a good business is already established, and the reputation of the shop is first rate; neither is there an establishment for 100 miles East, West or South, with facilities to make any amount of work to interfere with this establishment, supplying that scope of country with carriages.

The property is offered for \$10,000; \$600 of which sum can remain in bond and mortgage on the premises for ten years if desired. There is a choice selection of lumber and materials on hand that will be disposed of with the establishment at low prices.

John Hill, has charge of the business until satisfactorily disposed of, and will answer any inquiries in relation to the property promptly. Possession given immediately, if required.

SAMUEL PARTRIDGE,
By JNO. HILL, Agent.
[Aug. 1856.]

Elmira, July 1856.

SAINT LOUIS
SPOKE, FELLOE, HUB & WHEEL FACTORY,
Corner Broadway and Ashley Sts.
WOODBURN & SCOTT,

PROPRIETORS OF BLANCHARD'S PATENT,
MANUFACTURE WITH CARE, OF THE VERY BEST TIM-
ber, and keep always on hand, a supply of the following arti-
cles: Wheels, Spokes, Hubs, Felloes, Shafts, Bows, Poles &c.
Also, Blanchard's Patent Plow Handle, of which we are manu-
facturing by machinery a very superior article, as regards both
material and workmanship.
[Aug-1856]

STEELE & HOBBS,
IMPORTERS, MANUFACTURERS, AND DEALERS IN
SADDLERY & COACH HARDWARE,
No. 420 Broadway, near State Street,
ALBANY, N. Y.

A XLE ARMS, SPRINGS, MALLEABLE IRON, BOWS, HUBS,
Spokes, Shafts, Felloes, Moss, Curled Hair, Damask, Coach
Lace, Patent and Enamelled Leather, Oil Top Leather, Trunk Trim-
mings, &c., &c.
[Aug-1856]

PLATED COACH TRIMMINGS.



WHITE & BRADLEY,

28 Cannon Street,
BRIDGEPORT, CONN.,

MANUFACTURERS OF
**COACH & SADDLERY
HARDWARE**

EVERY VARIETY OF PLA-
ted Trimmings for Coach, Ca-
lash, and smaller Carriages, Fine
Coach Lamps of various patterns,
Bands, (new styles,) Handles,
Curtain Rollers, Mouldings, Pole
Crabs and Hooks, Buckles, &c. &c.
Any of our Trimmings, Plated in
Silver, Brass, or Princes' Metal,
are warranted to give satisfaction.
Bridgeport, Conn., July 1855.

RAHWAY SPRING WORKS,
RAHWAY, N. J.,

Manufacture every variety of Car, Carriage, Buggy, Sulky, and
Seat Springs, from the best quality of Steel.
A trial of our Work is solicited.

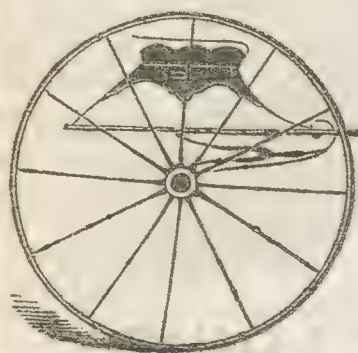
July 1855.

E. HAYDOCK, Proprietor,
J. GATCHELL, Agent.

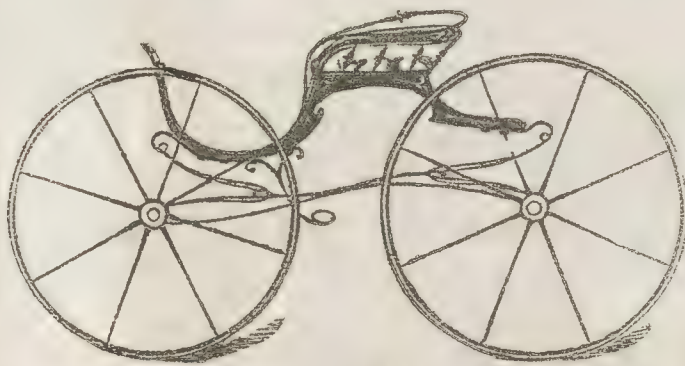
SPROUT'S COMBINED CARRIAGE SPRING.

PERCH AND BRACES!

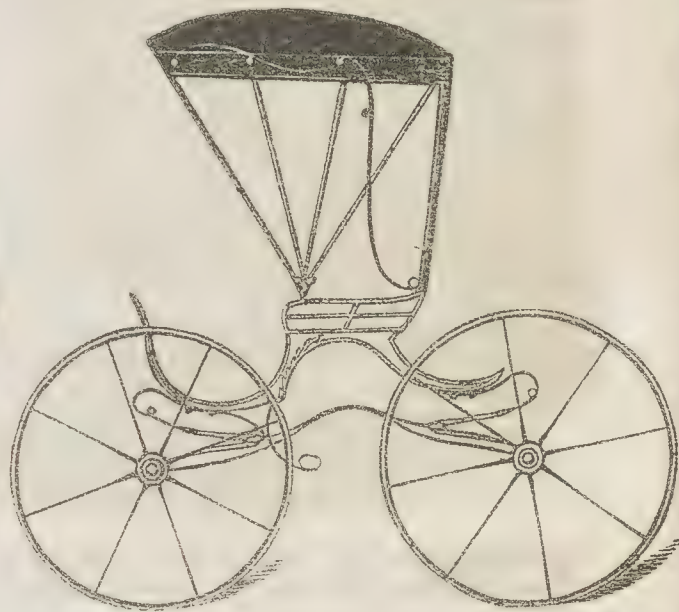
THREE COMBINED.



No. 1.—\$10.



No. 2.—\$15.



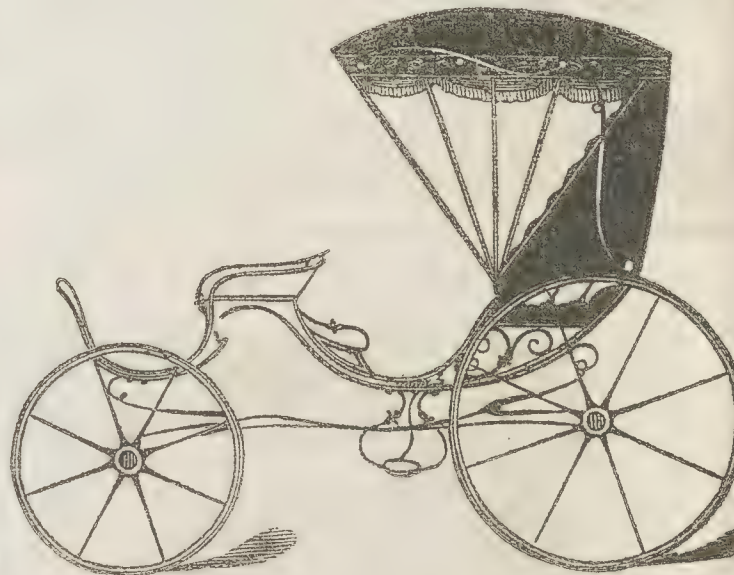
No. 4.—\$16.



No. 3.—\$16.



No. 5.—\$19.



No. 6.—\$22.

In offering this Spring to the Coach-making public we most respectfully call the attention of the Craft to the following advantages they embrace over the ordinary Elliptic Springs:

1st. Possessing double the strength and elasticity. 2d. A Carriage can be built much lighter. 3d. Much less concussion to the passengers. 4th. Its liabilities to get out of repair are not near so numerous. 5th. The wheels adjust themselves to the road without the carriage rocking. 6th. Springs designed for a heavy load will carry a lighter one with ease. 7th. It serves effectually as a perfect brace to the whole vehicle. 8th. Requires much less labor, wood and iron to construct a carriage. 9th. The whole connection being of Spring steel, a gentler motion is felt (instead of sudden jars, as with the ordinary perch and stiff braces,) and thus gives relief to the entire carriage.

These Springs, if applied to the carriage according to the directions, (accompanying them) are not only warranted to stand, but to accomplish every point set forth in this advertisement, and any time within one year should they fail to perform, they can be returned and the money refunded.

We are well aware that numerous patents have been granted within the last three years for improvements in Carriage Springs, and after the right was extensively sold to the Coach-makers throughout the country, many of them proved perfect failures, and thus shocked the confidence of the craft generally, in improvements for this branch of the carriage. But the proprietors of this Spring having full confidence in their improvement, have at great expense erected large factories and employ the best facilities for their manufacture; and now offer to the public (not the right to make, &c.,) but the Spring itself, and in a manner that none will be the loser to give them a trial, at the following low

PRICES.

Sulky Springs.....	per sett,	\$10 00
Light Buggy Springs.....	"	15 00
Top Buggy.....	"	16 00
Slide Seat Buggy Springs.....	"	17 00
Four Passenger.....	"	19 00
Six.....	"	22 00

Persons sending their orders for a peculiar shaped Carriage should take the side or rocker pattern of the different bodies to which the Springs are to be applied, and mark them off on the white side of wall paper, and also make the points at each end of the pattern where they desire to have the body loop to terminate, and forward the same, and the Springs will be made to harmonize with the shape and length of the bodies; or if the Springs are in-

tended for any carriage illustrated in this Magazine, the manufacturers will understand what is wanted, by giving the figure of such illustration, and will make them accordingly.

All orders from the South and West must be sent to C. W. Saladee, Columbus, Ohio, who has taken the agency of the Southern and Western States. From all other territory address

SPROUT, BURROWS & CO.,
Hughesville, Lycoming Co., Pa.

TERMS:

All orders for a less sum than \$50, must be accompanied with the cash. Those exceeding that amount, can have four months; payable in bank.

RECOMMENDATIONS:

REPORT OF THE N. Y. STATE AGRICULTURAL SOCIETY—SPROUT'S COMBINED CARRIAGE SPRINGS.

An entire new arrangement—getting double the resistance and elasticity, with less expense and weight of metal. The Committee recommend it as a valuable improvement a silver medal. In the Committee's awards they have given the Society's Silver Medal to the most meritorious articles.

J. B. LANGWORTHY.
JOSEPH SLOCUM.

I have used about one thousand dollars worth of Sprout's Combined Springs, and have not heard of the least dissatisfaction, but on the contrary universal praise. I have them under my own carriages for use, and know them to be the easiest and most durable springs that can be applied. Carriages can be got up with much greater despatch, and at less expense. All that part most liable to get out of repair is covered by these springs and warranted. They vibrate freely, and their motion over rough roads is peculiarly delightful. I can truly say I know of no spring equal to them now in use.

Milton, June 18th, 1855.

I am the owner of a livery stable, and have used nearly all kinds of springs, and have found none equal to Mr. Sprout's for ease and durability. The tops of buggies keep their places much better, not sagging sideways, and for rough roads nothing can equal them. I can save 50 percent in repairs by using these springs.

Milton, June 1855.]
J. WILHELM.

I had a 2 horse passenger wagon supplied with elliptics, which was, owing to the roughness of the roads continually getting out of repair.

I had them exchanged for a set of Mr. Sprout's, since which time I have had no trouble; often carrying double what he warranted them to do. They have been in continual hard service for over two years, and are now as good as ever. They carry one or more persons with perfect ease. I also have them under buggies in my livery stable, and find them attended with much less expense than any other Spring.

Muncy, Pa., June 1855

We, the undersigned, have had the old elliptic taken out, and Mr. Sprout's put in place and although attended with considerable cost, yet the difference in ease and durability far exceeds the trouble and expense.

JOHN F. McCLAIN, Hughesville, Pa.
J. M. B. PETRIKIN, Atty at Law, Muncy, Pa.
WM. M. RANKIN, M. D.
H. WOOD, M. D.

A short time since, as I was traveling to a neighboring county, just before me I saw a buggy with Sprout's Combined Springs, which seemed to move over the road with all ease, the wheels working into ruts, over roots and stones, at the same time the body keeping its horizontal position, while that of my own tossed me from side to side, rendering it extremely difficult to retain my seat. I sold my buggy the first opportunity, and purchased one with Sprout's Combined Springs, and now I have the pleasure of riding as easy as my neighbors.

Hughesville, Pa., June 18, 1855.

I have a buggy and sulky with Sprout's Combined Carriage Springs, which I have used two years. In my opinion they exceed any thing of the kind ever offered to the public. Persons who consult ease, after having used these Springs, can never be persuaded back to the old elliptics.

Hughesville, Pa., June 18, 1855.

CAUTION.

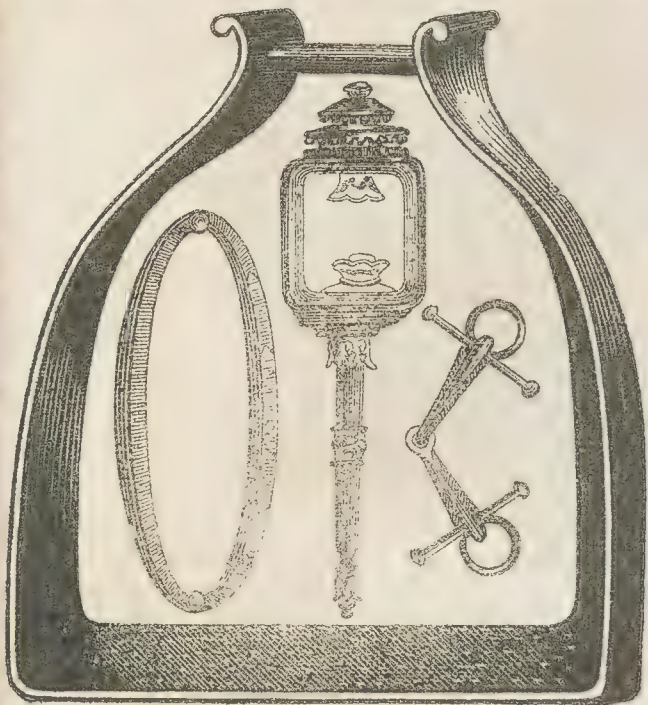
Springs of an inferior quality have been manufactured and sold by persons without authority. This is to caution the purchaser as well as the vender, against such infringement, as they will be dealt with according to law.

SPROUT, BURROWS & CO., Proprietors.

C. W. SALADEE, Agent for the South and West.

THE COACH-MAKERS' MAGAZINE.

Philadelphia Advertisements. GOFF & PETERSON,



IMPORTERS & MANUFACTURERS OF
SADDLERY, CARRIAGE
—AND—
HARNESS TRIMMINGS,
No. 49, North Third Street,
PHILADELPHIA.

WE HAVE ONE OF THE LARGEST STOCKS OF TRIMMINGS on hand of any House in the country, consisting of every description of Goods used by Carriage or Harness Makers, such as Cloths, Damasks, Silks, Cotelines, Laces, Fringes, Patent and Enamelled Leathers and Cloths, Springs, Axles, Hubs, Felloes, Bows, Lamps, Castings, &c., at the lowest rates to be had any where.
June 1855

JOHN M. FORD,



IMPORTER, MANUFACTURER & DEALER IN
SADDLERY, COACH HARDWARE
AND TRIMMINGS,
No. 32, North Third Street, Philadelphia.

PURCHASERS will find it to their advantage to examine my Stock, which is very extensive, and purchased or Cash; and consists in all the variety of New Styles of Goods in my line.
N. B.—All Orders shall have particular and prompt attention.
June 1855.

Wm. P. Wilstach & Co.,
IMPORTERS, MANUFACTURERS AND DEALERS IN
SADDLERY & COACH HARDWARE,
SADDLERY & CARRIAGE TRIMMINGS,
NO. 28½ NORTH THIRD ST., BETWEEN MARKET & ARCH,
PHILADELPHIA,

WHERE WILL BE FOUND THE LARGEST AND MOST COMPLETE assortment in this City of AMERICAN & FOREIGN GOODS. They will be offered to Cash buyers, and on six months time, below the usual market rates. They solicit old acquaintances, and all dealers in Saddlery, Carriage and Harness Hardware and Trimmings, and also Saddle and Harness Makers, and especially Coach Manufacturers generally to call and examine their stock, which will be found to be by far the largest in the City of Philadelphia, embracing a full assortment of the various Hardware articles, Leather, Wood-work, Tools and Trimmings used by Saddlers, Harness and Carriage-Makers, especially adapted to the style and taste of the Southern, Western and Middle States.
Orders by mail from parties not in the habit of visiting the Eastern cities, (where Goods can be bought at from 10 to 20 per cent. less than in the Western towns) are respectfully solicited, and the Goods sent will be warranted to give entire satisfaction in price and quality.
Jan 1855.

EXCELSIOR LAMP BLACK.

MANUFACTURED SOLELY BY
LAY & BROTHER,



Office, No. 83 Dock Street, next to Post Office.
PHILADELPHIA.

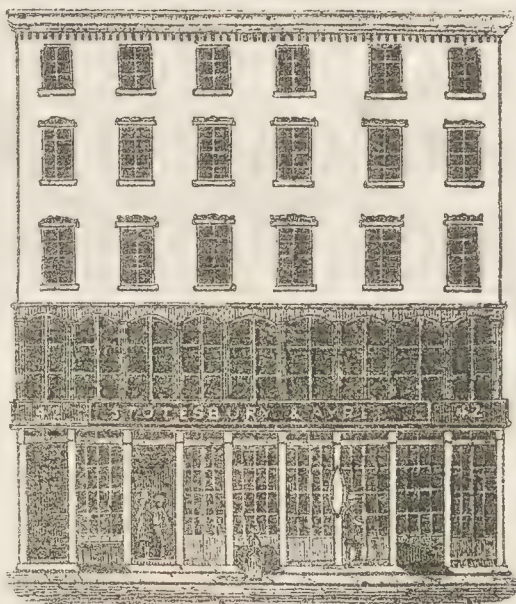
Branch Factory, Baum's Alley, between Main and Sycamore Streets, below Second, Cincinnati, Ohio.

PRICE LIST.

1 to 25 lbs., in 1 lb. packages.....	25 cts. per lb.—in bulk, 18 cts
25 to 50 " " " " " " " " " "	20 " " " " " " " "
50 to 100 " " " " " " " " " "	18 " " " " " " " "
100 and upwards, " " " " " " " "	16 " " " " " " " "

Orders by Mail promptly forwarded.

June-1855



STOTESBURY & AYRES,

IMPORTERS AND MANUFACTURERS OF

SADDLERY HARDWARE,

AND CARRIAGE FURNITURE,

No. 40 & 42 North Third St.,

ONE DOOR BELOW ST. CHARLES HOTEL.

PHILADELPHIA.

PATENT COLLAR AND DASH LEATHER, BLACK AND FANCY Enamelled do., Japanned and Enamelled Curtain Cloths, Cloths, Damasks, &c. Linetts, &c., Laces, Fringes, Tufts, Springs, Axles, Malleable Iron, Felloes, Spokes, Bows, Hubs, Cotton and Worsted Girth Web, Stirrups, Bits and Roller Buckles, Brass, Silver and Japanned Harness Mountings, Joints, Bows, Calash Furniture, Screw Bolts, Hames, &c.
[June-1855]

CHOPE'S PATENT COUPLING.

HAVING COME TO THE CONCLUSION TO DISPOSE OF MY Patent for the United States, in Territory or otherwise, to those wishing to add strength, utility, durability, neatness and cheapness in the manufacturing of vehicles, I would particularly call their attention to the opportunity that is herein set for them or offered. Any person wishing to purchase, I will send them one to try. If it does not answer in every manner as set forth, the cost is all that will be required; otherwise full price, as set for in March No. Magazine. We shall continue to receive orders until further notice is given through the Magazine. All orders addressed to A. & T. CHOPE, Detroit, Mich., will receive prompt attention.
June-1855 THO'S CHOPE, Patentee.

HASTIE, CALHOUN & CO.,

No. 39 Hayne Street,

CHARLESTON, S. C.

Successors to HARE, CALHOUN & CO., and HARRAL, HARE & CO., Importers and Wholesale Dealers in

Saddlers' & Coach-Makers' HARDWARE & TRIMMINGS.

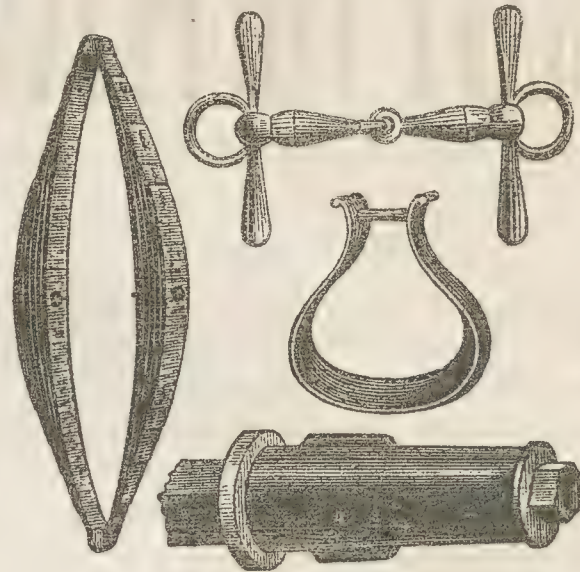
Leather & Shoe Findings.

Also, Manufacturers and Wholesale Dealers in

SADDLES, BRIDLES, HARNESS, & C.

TERMS—To punctual customers six months, or 5 per cent. off for Cash.
[June 1855]

H. & G. FRICKE,
No. 14 North Third Street, Opposite Church Alley,
PHILADELPHIA



IMPORTERS AND MANUFACTURERS OF
SADDLERY & COACH HARDWARE.

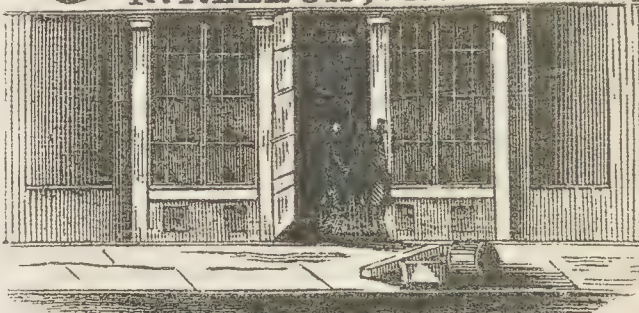
Has constantly on hand Patent Leather of all descriptions, springs of all kinds, Axles of every description, Malleable Iron, Spokes and Hubs, Felloes and Shafts, Carriage Bolts, Coupling for Axles and Shafts, Enamelled Cloth of all descriptions, Dashes, Knobs and Joints, Curled Hair and Moss, Turned Wood Work, Webbing of all kinds, Saddlers' and Coach Makers' Tools, Oil Cloths of all descriptions, Fringes and Laces.

Quality and Price as favorable to purchasers as can be bought in the United States.
Terms Cash or 6 months. [June 1855.]



SADDLERY, HARDWARE & CARRIAGE FURNITURE.

R. T. LEECH, JR.,



R. T. LEECH, JR.,

IMPORTER AND DEALER IN

FOREIGN AND DOMESTIC SADDLERY HARDWARE

—AND—

CARRIAGE TRIMMINGS.

No. 127, formerly 131 Wood St.,

Pittsburgh, Pa.

June-1855

E. J. WHITEMORE, PHINEAS JONES, O. N. WHITEMORE.

WHITEMORE & JONES,

Elizabethport, New Jersey,

MANUFACTURE COACH, CARRIAGE AND WAGON WHEELS of every description for the trade. Orders respectfully solicited from Carriage Manufacturers, &c. Stock for making Wheels for sale.
Feb. 1855-ly

THE COACH-MAKERS' MAGAZINE.

SARVEN'S PATENT ANTI-RATTLING, ANTI-FRICTION SHAFT COUPLING.

That will last as long as a Carriage to which it is attached, without costing a dime for repairs.

BEING ON AN ENTIRELY NEW PRINCIPLE, discarding altogether the old Jack Bolts with their long ends projecting out, which certainly possess neither beauty, durability, or correspond with any other portion of a finely finished vehicle. I will not undertake to describe this Coupling, but simply say, that it is not complicated or expensive, and makes a perfect finish. I employ neither Indiarubber or Springs, and its operation is not affected like most of Spring Couplings by being clogged in winter by ice or frozen mud. If you will imagine a smoothly turned globe or ball, working in equally smooth chambers that can be oiled, excluding dirt and grit, and the chambers so arranged that their pressure upon the globe is regulated by a set screw, no wear coming upon the screw, but entirely upon the globe, you have as good an idea of the coupling as you probably can get, without seeing the coupling itself, which being of different sizes, is adapted to light or heavy work.

Any information in relation to this coupling, may be had by addressing the undersigned.

JAMES D. SARVEN,

Inventor and Patentee, Columbia, Tenn.
June 20th, 1856.

P. S.—It will be admitted that the globe will not break, and no wear coming upon any other part of the coupling, it is believed to be made on the best known mechanical principle, to prevent wear and friction; but the idea of oiling a Shaft coupling and excluding dirt and grit may not appear to possess much merit. Let me ask why we oil an axle, or try to exclude dirt or grit, and how long an axle would last if left exposed, and without oil, as is common in shaft couplings. In both cases, there being continual motion and rubbing of metal together when a carriage is in use, and as the same law of wear and friction is applicable in both cases, is it not plain that the same remedy must be applied in one case as in the other? Having had an experience of nearly twenty-five years in the coach business, both East and West, and having noticed somewhat the march of improvement during that time, I have no hesitation in offering this as an improvement to overcome the difficulties so long and so often experienced by the carriage making and carriage using community, and invite a careful, critical, and impartial examination before sentence is pronounced.

J. D. S.

SAMUEL F. PRATT,

PASCAL P. PRATT,

WM. P. LETCHWORTH.

PRATT & LETCHWORTH,



MANUFACTURERS, IMPORTERS & DEALERS IN EVERY DESCRIPTION OF
SADDLERY, COACH & TRUNK HARDWARE,

OFFICE AND SALE ROOMS, No. 34 Terrace Street,
Opposite the Western Hotel, and adjoining the Hardware Store of Messrs. Pratt & Co.

BUFFALO, N. Y.

[June 1856.]

RAHWAY HUB MANUFACTORY.

The Largest and Best of the kind in the United States.

EVERY VARIETY OF SEASONED, MORTICED, & UNMORTICED, KEPT CONSTANTLY ON HAND, SUITABLE FOR TRUCKS, Heavy Wagons, Omnibusses, Coaches, Rockaways, Buggies, Sulky, &c. The subscriber spares no pains in procuring the best of timber, and in getting up his work in the most approved style.
JOHN URMSTON.
Aug. 1855. Union St., Rahway, N. J.

SMITH & VAN HORN,

No. 70 Beckman St., between Pearl & Gold Sts.,
NEW YORK.

IMPORTERS OF & DEALERS IN

CARRIAGE HARDWARE TRIMMINGS, &C.

HAVE ALWAYS ON HAND

Springs—all qualities.
Axles—all kinds.
Malleable Castings,
Carriage Bolts—best and common.
Patent Leather,
Enameled do.,
Painted Cloth,
Enameled Muslin do.,
Drills, do.,
Duck do.,
Broad Cloth—all colors,
Damask—Worsted and Cotton,
Orleans Cloth—Silk Stripe, do.,
Plain,
Brocadeles and Cotelines,
Curtain Silks,
Silk and Worsted Coach Laces,
Fringe and Tassels.

Brussels and Velvet Carpet,
Oil Cloth Carpet,
Caleche Fixtures,
Spring Barrels,
Curtain Frames,
Coach and Buggy Lamps,
Lining and Saddle Nails,
Rein Hook Levers.

As well as all other articles used in the manufacture of Carriages, S. & V. H. from their long experience in the business, think that their stock, which has been selected with great care and with a view to supply consumers, will, for quality and price, favorably compare with any other in the market, and solicit a trial from carriage manufacturers.

English Varnish and Japan, put up in 1 Gal. Tin Cans.—Price of Carriage Varnish, \$5.—Body, do., \$6.75, Japan, \$5.00, Enameled Leather Varnish, \$6 per Gal.
[July 1856]

C. N. LOCKWOOD,

(Late Eagles & Lockwood,)

COACH LAMP MANUFACTURER AND SILVER PLATER,

16, MECHANIC ST.,
NEWARK, N. J.

THE LARGEST ASSORTMENT IN THE UNITED STATES, embracing over 100 different sizes and patterns of Coach and Buggy Lamps.

Engine and Signal Lamps. Coach and Candel Mouldings, Curtain Frames, Dashes, Railings, Branch Irons, Handles, Pole Hooks, Tuft Nails, &c., &c. constantly on hand, at Wholesale and Retail.
[July 1856.]

DELAWARE

Spoke & Bending Factory.

JOHN McELROY, PROPRIETOR.

HAVING LEASED MY CARRIAGE FACTORY FOR A TERM of years, I am now devoting my whole attention to the manufacturing of every description of Spokes, Hubs, Felloes, Shafts, Poles, Bows, &c., &c., which for quality of timber and workmanship, cannot be surpassed in any market, and which will be sold to the craft on as favorable terms as at any other establishment in this country. Being located on the C. & C. Rail Road, and S. M. & P. R. R., the facilities for shipping are as good as from any other point in the State.

LIST OF PRICES:

Spokes from 1 in. to 2 1/4, per hundred	\$5 00
Bent Felloes 1 in. to 1 1/2, 1 1/4 per set	1 60
" " 1 1/2 & 1 3/4	1 75
" " 1 3/4 & 1 1/2	2 00
Bows, per sett	70
Wagon bows, 6 to the sett	1 60
Light	1 25
Shafts, bent heel	55
" straight heel	45
Buggy Poles	70
Sulky Shafts, per pair	75
Buggy Hubs, unmorticed	87 1/2
2 Horse Wagon Hubs, oak	2 25

Five per cent off for Cash. Orders solicited. Address
JOHN McELROY, Delaware, Ohio.

Nov-1855.

J. W. WHEELER.

H. G. WATERS.

FOREST CITY SPOKE & BENDING FACTORY.

Wheeler & Waters, Proprietors.

No. 76, Ontario St., Cleveland, Ohio.

MANUFACTURERS OF CUT & BENT FELLOES, SHAFTS, BOWS, TURNED SPOKES, POLES, &c.

OUR FACILITIES FOR MANUFACTURING ARE SUCH AS to enable us to furnish wood works of every description to the trade, on terms that will not fail to render entire satisfaction to all who may favor us with their patronage.

None but the best quality of timber is employed in our factory, and in point of smooth and perfect work in the spoke department, we flatter ourselves to say that we can not be excelled in any country. Orders solicited.

LIST OF PRICES:

Spokes from 1 in. to 1 1/4 per hundred	\$5 00
for Wagons Omnibusses do.	5 50
Bent Buggy felloes, per sett	1 50
Wagon " 2 in., per sett,	2 00
" Bows, per sett	75
Wagon Bows, 5 to sett	1 00
Shafts, bent heel, per pair	60
" straight heel, per pair	50
Sulky,	1 00
Poles	85

Nov-1855.

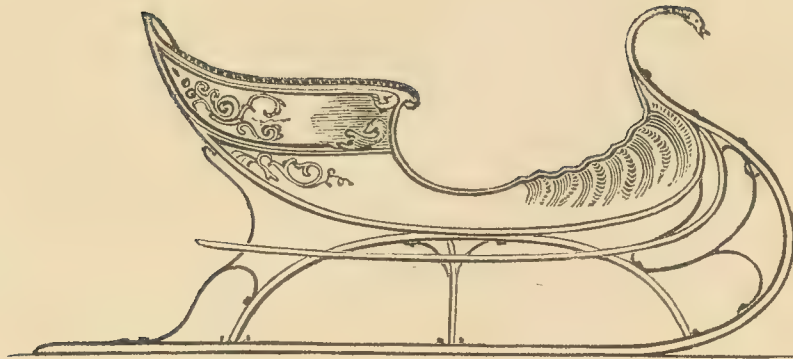


Fig. 45—The French Cutter.

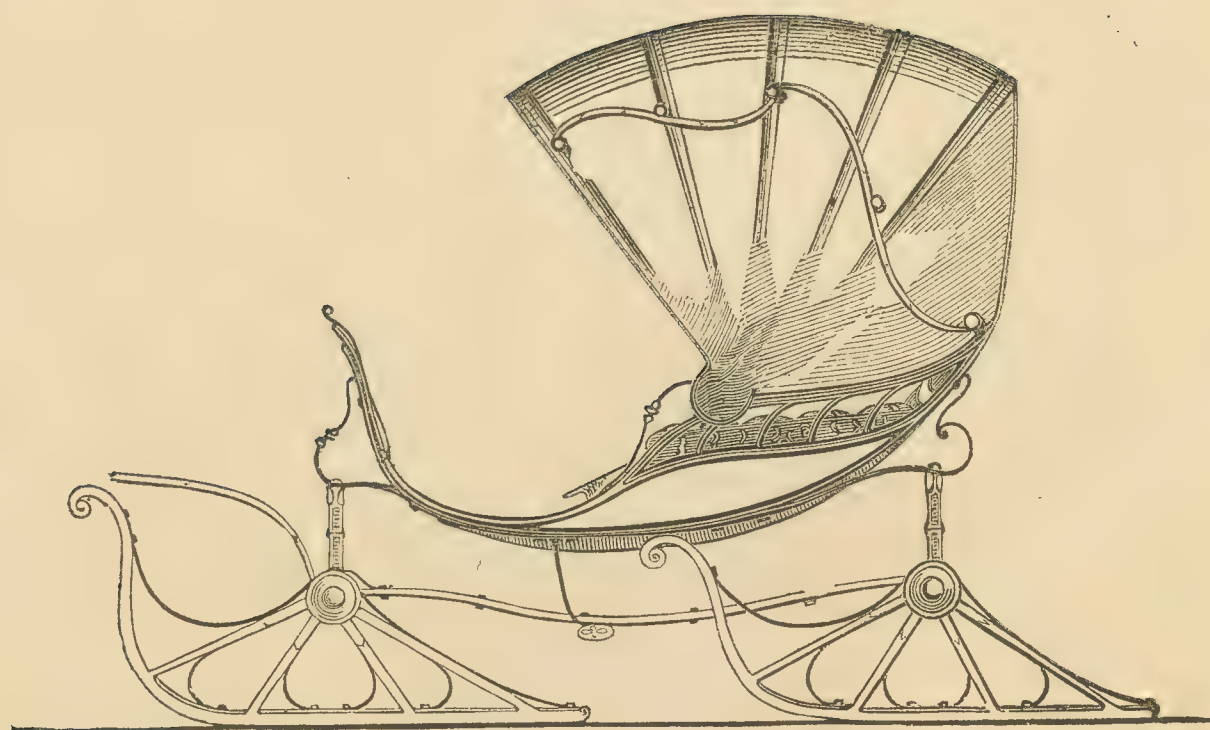


Fig. 46—Phaeton with wheel runners applied.

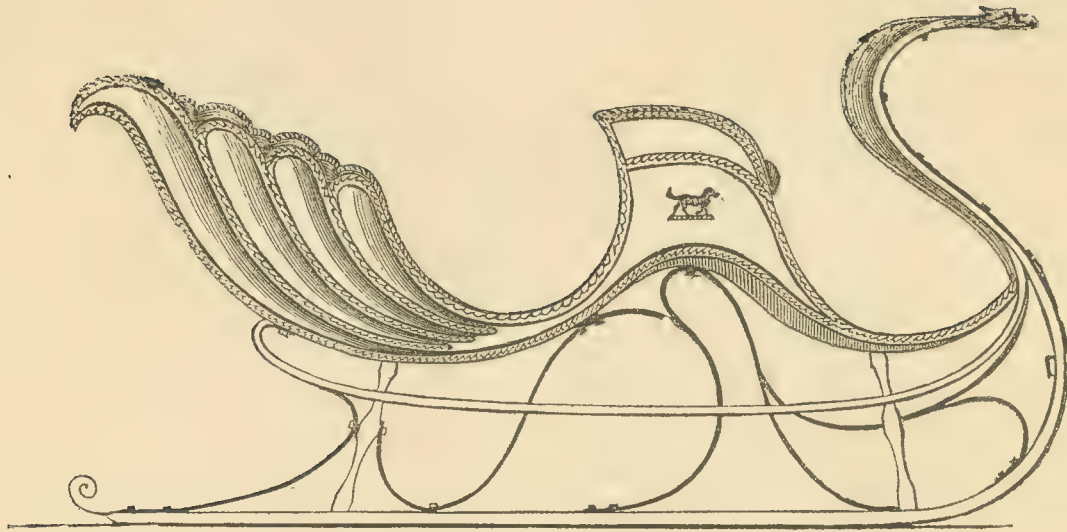


Fig. 47—Russian Cutter.

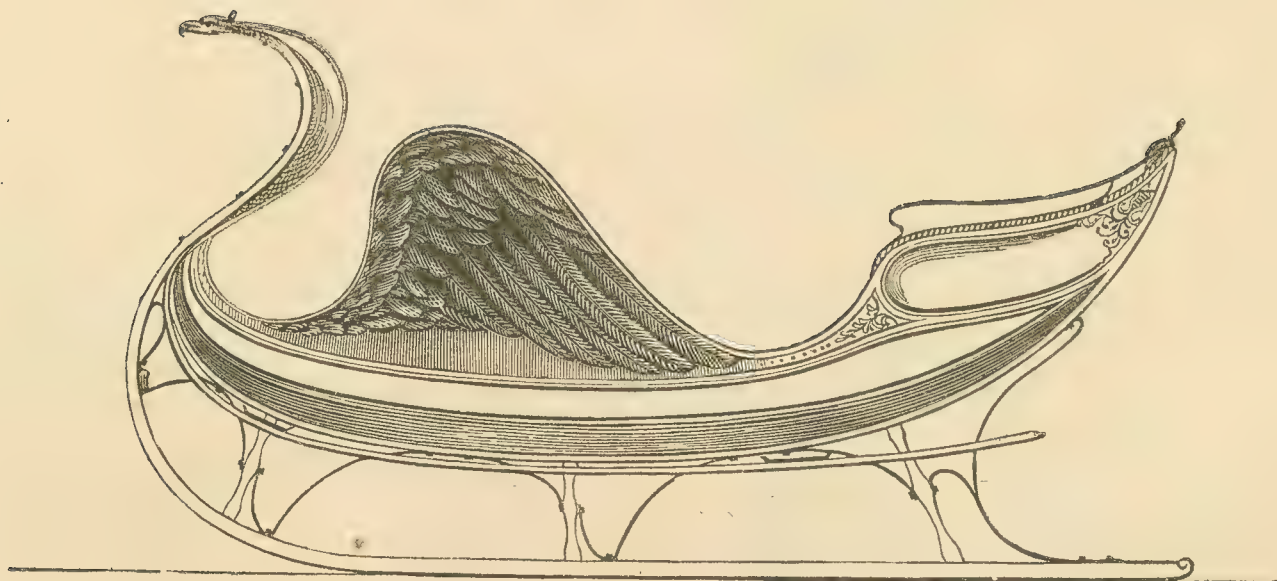
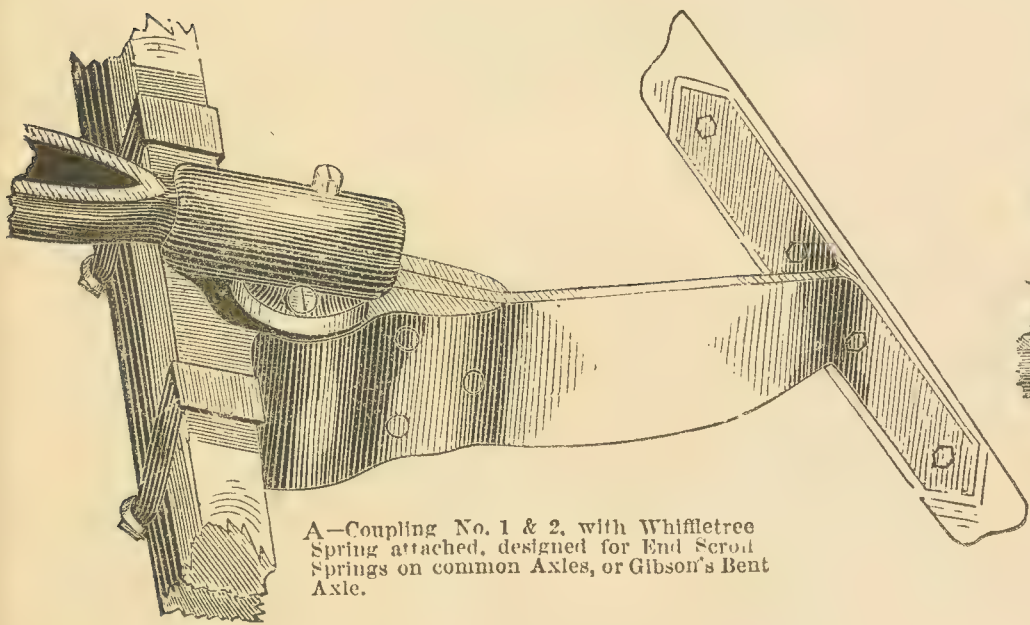
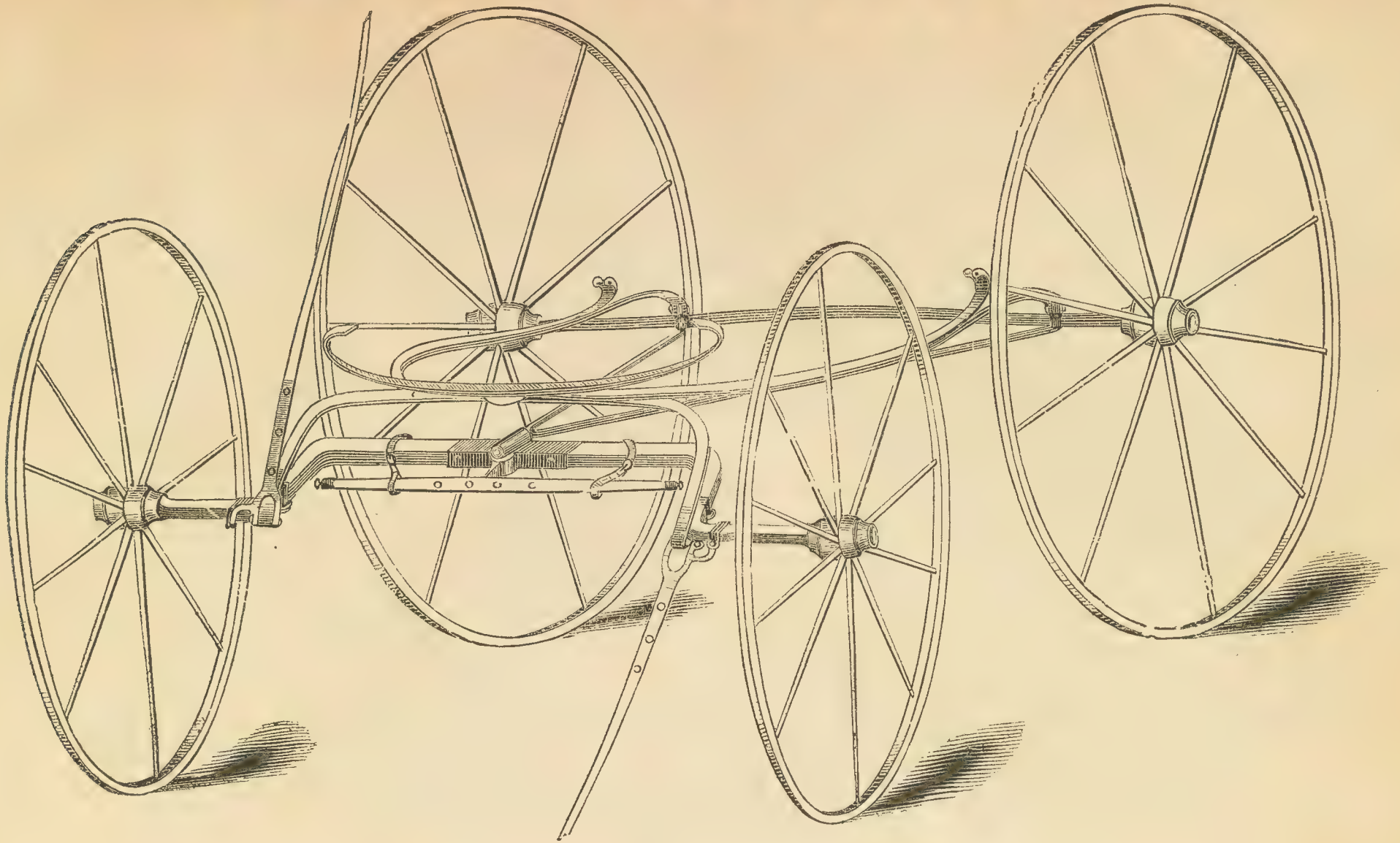


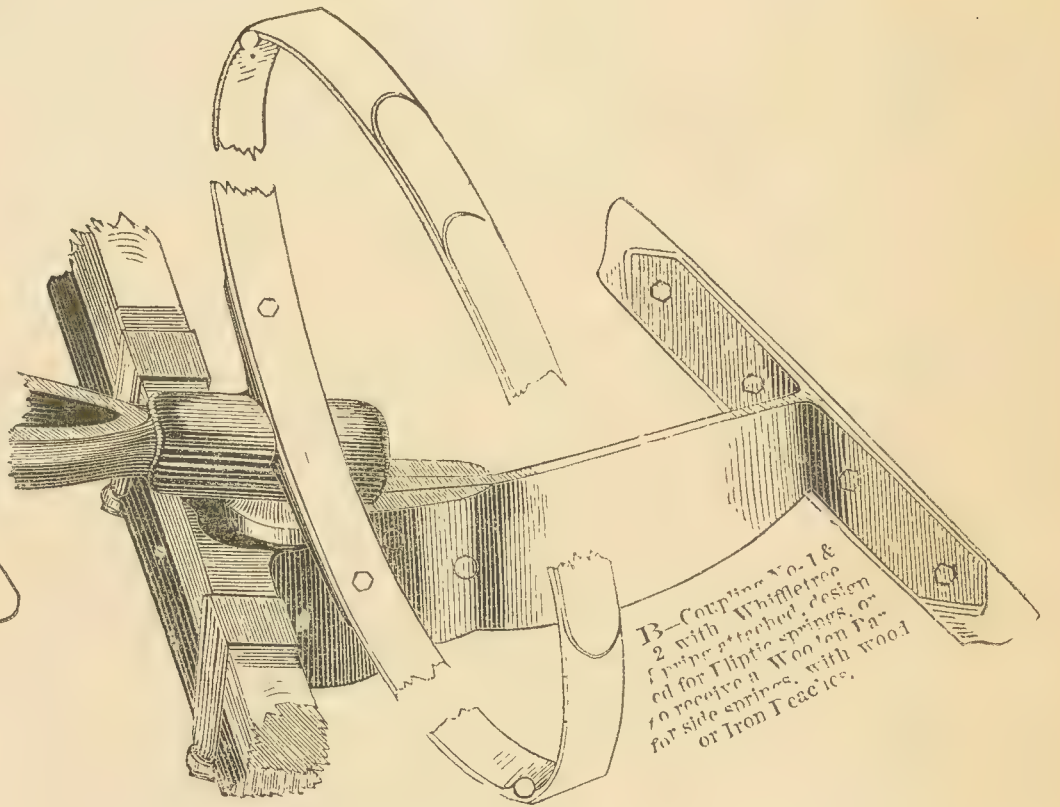
Fig. 48.—The Albany Sleigh.



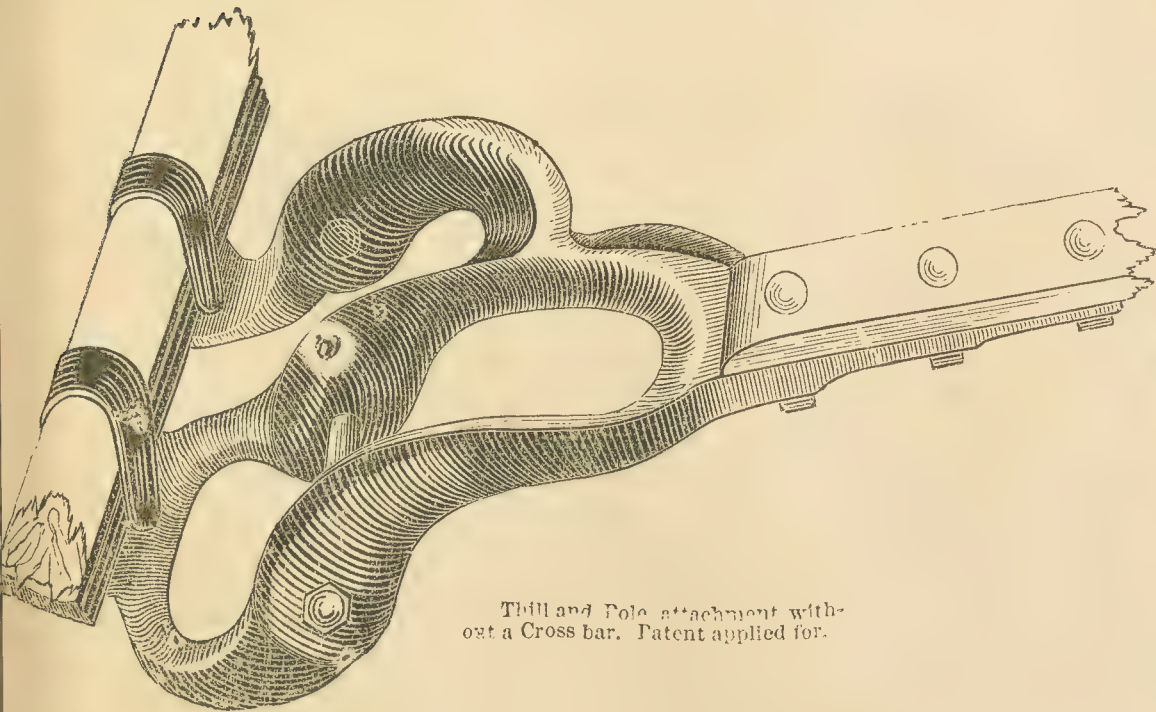
THE CLINTON CARRIAGE.



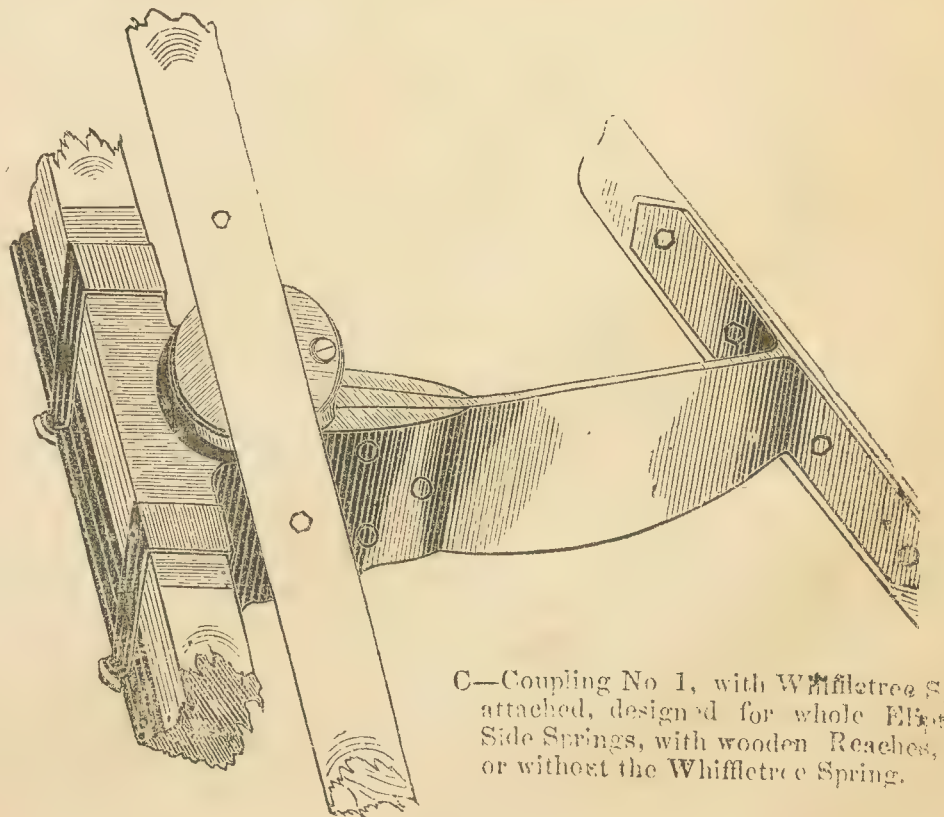
A—Coupling No. 1 & 2, with Whiffletree Spring attached, designed for End Scrol Springs on common Axles, or Gibson's Bent Axle.



B—Coupling No. 1 & 2 with Whiffletree Spring attached, designed for Elliptic Springs, or to receive a Wooden Frame for side springs, with wood or Iron Traces.



Thill and Pole attachment without a Cross bar. Patent applied for.



C—Coupling No. 1, with Whiffletree Spring attached, designed for whole Elliptic or Side Springs, with wooden Reaches, with or without the Whiffletree Spring.



Volume 2.--Number 9.]

September, 1856.

[C. W. Saladee, Editor and Proprietor.

TERMS:

Single subscription one year	- - - - -	\$3 00
Clubs of three	" - - - - -	8 00
" " six	" - - - - -	15 00
" " ten	" - - - - -	20 00

Payable invariable in advance.

All Clubs, however, must be sent to one address.

Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented stamped on the cover in gilt letters.

All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Persons visiting New York, who are not subscribers, can see the Magazine and subscribe by calling at the Office of the Coach-Makers' Magazine, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for New York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

Back Numbers, from January 1st, furnished to all new Subscribers.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

All advertisements for a shorter time than twelve months are charged 50 cts per line for each insertion; Payable in advance.

Fashions for September.

SLEIGHS AND SLEIGHING.

Winter is coming, and if such a monster as the last, sleighing is coming to. It is high time, then, that we prepare ourselves for its enjoyment, while it is yet some months distant. The sleigh is a merry vehicle, and doubtless there is none other with which there is linked so many pleasing and happy recollections as the sleigh. The old stage coach claims much at our hands in this respect; many warm acquaintances have we made, and many happy hours have we spent in friendly and profitable conversation, while riding leisurely along in the good old coach. But still we have spent far happier hours of mirth and glee in the merry sleigh.

There is nothing which presents to us a more comfortable and

happy scene than that of a fine sleigh, well filled, the passengers snugly huddled up within the luxurious folds of those warm Canadian robes and drawn swiftly along by an able team of panting horses. There is an air of happy expression about it that we fail to behold in almost any other exercise for pleasure. The jingling of the bells and the voices of the merry vocalists unite in making an "evening sleigh ride" one of the happiest enjoyments in which we can indulge.

No city, European or American, can exhibit a more gay and lively appearance in its public drives than is presented by what is called "Boston Neck" (in the City of Boston) when there is good sleighing. The scene is one to enliven the spirit and delight the eye; albeit, a serious accident will sometimes happen now and then to mar the pleasure of the hour. Our winters are short and we have as a general thing but a brief period when sleighs can be used to advantage, but during the time the snow does remain with us, the facilities afforded thereby are improved to the utmost. It is then that "Boston Neck" presents a scene of grandeur and jollification that cannot be surpassed even in old Quebec. The myriads of sleighs of every possible variety from the fairy-like cocle shell to the impromptu pung made with a couple of hoop poles and a crockery crate—the gaily caparisoned blood horses, and the skeletons that would be rejected as bait for crows, one, two, four, eight, twelve, and indeed sixteen horse sleighs, all filled with merry, shouting, companies, make a scene which can only be found on the 'Neck.' Racing is the great aim and end of all the drivers, especially of those who own or drive fast horses. A steady, quiet man often rides up to the 'Neck' without the least intention of joining in the dangerous sport, but merely to see the fun. The excitement, the Jehu's, the danger of collision, the shouts and jeers of the throng that crowds the side-walks, and the dislike to be beaten, drive him into the whirlwind of racing steeds, and ere the steady old gentleman is aware of it, he is gathering himself into a "2:40" position, and shouting "hi!yah!" and the "go lang" as briskly and loudly

as the most hot headed of them. Possibly he comes out ahead, more probably he is left behind, or perhaps he has the good fortune of being "smashed up," but no matter, he consoles himself with the reflection that it is the fortune of the day. No city in America can, in our opinion, produce so many beautiful and fast horses as Boston, and if you would see three-fourths of them congregated together at any one time, you have only to take a Washington street omnibus and go up to Blackstone Square, where you will find all sweeping by at a "2:40" rate, and the drivers still urging the animals forward to a greater speed, everything seems to fly, and you grow half dizzy with the gaiety and spirit of the scene before you.

The sleigh ride is most beautifully expressed in the following lines, which were sent us by a fair correspondent who knows all about it, being a resident of Canada West:

Jingle, jingle, clear the way,
'Tis the merry, merry sleigh,
As it swiftly scuds along,
Hear the burst of happy song:
See the gleam of glances bright,
Flashing o'er the pathway white;
Jingle, jingle—how it whirls,
Crowded full of happy girls.

Jingle, jingle—fast it flies,
Shooting shafts from roguish eyes:
Careless archers I'll be bound,
Little heeding when they wound;
See them with capricious pranks,
Ploughing now the drifted banks,
Jingle, jingle, 'mid their glee,
Who among them cares for me?

Jingle, jingle—on they flow,
Caps and bonnets white with snow,
And the faces swimming past—
Nodding through the fleecy blast;
Not a single robe they fold
To protect them from the cold.
Jingle, jingle—'mid the storm,
Fun and frolic keep them warm,

Jingle, jingle, down the hills,
O'er the meadows, past the mills,
Now 'tis slow, now 'tis fast,
Winter will not always last;
Every pleasure has its time,
Spring will come and stop the chime.
Jingle, jingle—clear the way,
'Tis the merry, merry sleigh.

But we are digressing; as it was our intention at the starting point to give simply an explanation of the sleighs illustrated in our drawing department of this No., but, like our steady old friend, the excitement of merely *contemplating* the scene of a merry sleigh ride has for the moment caused us to forget all else. But we will "hold up" for the explanation.

FIG. 45—THE FRENCH CUTTER.

This beautiful design for a light one horse cutter was sent us by one of our subscribers in Canada, who states it is original with him; and so we think, as we have never seen any thing like it before. In regard to its construction the contributor says:

"It will be observed that nearly all sleighs have three perpendicular standards extending from the runner, to which the cross-ties are fastened; but in this cutter I employ but one perpendicular standard, which is placed in the centre, under the body, as will be seen in the drawing. I then take the half rim of a four foot wheel, and straighten it so as to frame on the centre cross tie, and the runner as shown in the drawing. The top of this half rim is inclined *in* at the top where it is connected to the cross tie. By this means they are made to form a perfect brace. This arch brace just mentioned, is not a new idea, yet it is very little known or used; however, I consider it the best principle upon which a light running part for a cutter can be constructed. When intended to

be something very fine and extravagant, as many are in this country, the sides of the body are made solid, out of pine 6 inches thick, and a deep swell cut on the outside, and lightened out on the inside to any desired extent, and the figures on the side are all carved as represented. But for the more ordinary kind of sleigh of this pattern, the body is made smooth pannel, the same as all pannel bodies, and the figures illustrated in the drawing are represented in the *painting*, and which, by the way, makes a most beautiful finish. A large ornament, of some appropriate kind, should be applied to the back. The trimming in this kind of sleigh should invariably be plush of a light shade."

FIG. 46—PHÆTON WITH WHEEL RUNNERS APPLIED.

Every Eastern and Northern individual who is able to sport a horse and buggy would doubtless possess a sleigh also, so that he might alike enjoy the pleasures of the winter and the summer. But in many instances the storage of the sleigh through the summer season is attended with much inconvenience for the want of room, and in some cases where that is not to be readily obtained, the cutter is left to the mercy of the rains and sun, and when winter again sets in, and it is called into requisition, it will be found that a heavy bill of repairs is necessary. But for the benefit of all those who have not the room to store *two* different vehicles, nor the patience to keep them in order, we have illustrated a plan in Fig. 46 which will enable them to have both sleigh and wagon combined in one, and is so arranged that it can be changed from one to the other in five minutes. You have simply to take a sett of hubs, the same size of those in your wheels, put a hole through the centre, insert four or five strong spokes, and mortise into the runner as shown, and shoe them after the manner of the ordinary runner. When done, paint them some lively color and finish with flashy striping. You can then drive a couple of large pegs in the side of your carriage house and suspend them thereon. When snow comes and the time for sleighing, detach the wheels from the phæton, put them in some convenient place out of the way, and slip on your wheel runners, and you have a most pleasant and convenient sleigh. In making these "wheel runners," care should be taken to place the centre of the hub or the bearing of the axle about 3 inches back of the runner, so that the weight of the body and load rests slightly heavier on the heels of the runners than on the points.

FIG. 47—RUSSIAN CUTTER.

A friend in New York sent us this gaudy design accompanied by the following remarks:

"Four years ago, while in St. Petersburg, Russia, I obtained various sketches of their pleasure vehicles, and among them I brought with me a design for a sleigh, from which the enclosed drawing was made. Hence I give it as a "Russian Sleigh."

The running part is made with two benches, and ironed as represented; the centre branches extending up to the body and firmly bolted thereto. The front half of the body is frame work and pannel, and the rear half is made of solid side and carved as represented; though a pannel body throughout after this style could be made, and painted and ornamented in the manner illustrated in the drawing, and in appearance have nearly the same effect. The back is a plain pannel appropriately ornamented."

FIG. 48—THE ALBANY SLEIGH—(TWO HORSE).

Mr. Gould, of Albany, is said to be the original designer and manufacturer of this sleigh. We have seen some in his factory,

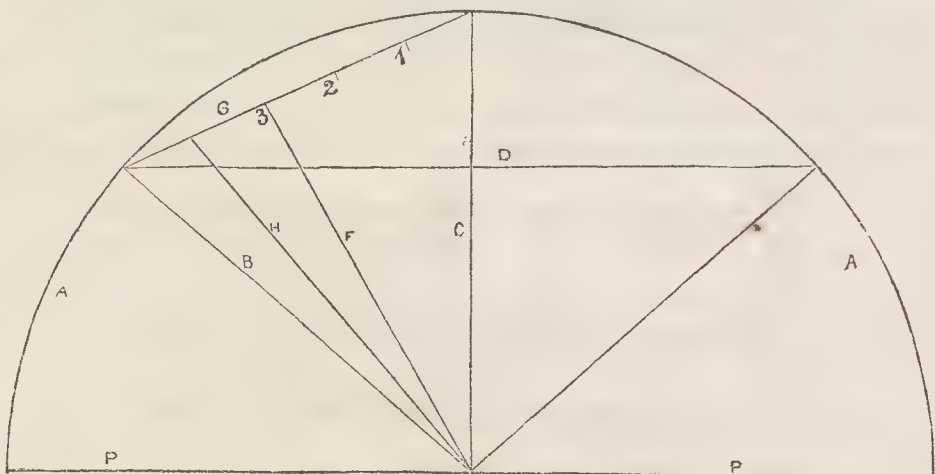
which for elegance and style of finish far surpasses any thing of the kind we have ever seen. He builds this kind of sleigh in a variety of ways and styles. The ordinary kind or simply plain pannel bodies, are painted and ornamented something after the manner represented in our drawing, but the more elegant class have the wing on the sides of the front seat carved as illustrated. The painting is executed in the most gaudy style possible, and the trimming is as costly, as neatly and tastefully arranged, as in some of the fine coaches. Some of the latter class have fine, large extension leather tops put on, which gives them a very grand and extravagantly rich appearance. This design—having been in use for some time in a few of the eastern cities—is nothing new, yet it is admitted to be the best style of heavy sleigh, of which we have any knowledge.

COMMUNICATIONS.

For Saladee's Magazine.

AN EASY RULE FOR FRAMING AND CONSTRUCTING STICK SEAT.

MR. SALADEE—*Dear Sir*:—The following you will find to be a correct rule for open seats where the corner pillars are beveled two ways. It is something original with myself, and if you think it of any importance to your many readers I give it freely, and likewise feel indebted to you for the benefit I have received from your popular mechanics' journal, the "Coach-Makers' Magazine."



You will first draw a half circle, any given size, after which set your bevel to any angle you desire the mortise in your seat frame, and draw lines B B from the centre of base line, P P. Next, draw perpendicular line C from base line, after which draw line D from the points where B B touches the circle A A. Next take your dividers and let one point rest on line C where it meets circle A A, and set them so that they will be just one half the distance between the line D and circle A A, on the C line. With the dividers thus set, you will place one point on circle line A A, where lines G and B cross it, and let the other point rest on line G which shows you the exact location of line H. You will next let one point of the dividers rest on circle line A A where C intersects it, and the other on line G and prick off three spaces, 1, 2 and 3, and the point of the third space gives you the location of line F; after which you are ready to apply the rule to your work. But remember, line B is to lay out the mortises in the seat frame. Line H is to cut the shoulder on the corner pillars, and line F gives you the bevel to dress out the corner pillars.

Yours, &c.,

R. R.

[We consider the foregoing the most complete system for framing and constructing light open seats, or as they are termed "stick seats" we have ever seen, and every body-maker will be materially benefitted by adopting it. The worthy brother who contributed it is a resident of Poughkeepsie, N. Y.—Ed.]

For Saladee's Magazine.

THE FAIR OF THE AMERICAN INSTITUTE IN THE CITY OF NEW YORK.

The managers of this old and popular Institution have sent us their Circular, from which we shall present our readers with such an abstract as we think will interest them. The Crystal Palace

erected in 1853 has this year again been secured for their 28th Annual exhibition, and it will be open for the reception of goods from Monday the 15th, until Saturday, the 30th of September. Articles from a distance will be received on and after Sept. 1st, but no article will be received to be entered on the Judge's list for competition or premium after Oct. 4th, except it belong to the Horticultural Department. This Exhibition will open to the public on the 22d day of September, and close positively on Saturday, the 25th day of Oct. The circular says that "while all the powers of Europe are fostering and promoting associations similar to that of the American Institute, we would appeal to our citizens at large to come forward and make a demonstration next Autumn in all the productions of our country, and prove to the world that America is second to no nation in that which renders us independent of all."

Arrangements have been made with the principal Railroad and Steamboat lines whereby the exhibitor, by paying his freight to New York, will, at the close of the Fair, have it returned back freight free any time previous to the 15th Nov., on the presentation of a certificate from the officers of the Institute, that the article was actually on exhibition, and has not changed ownership. We hope our friends among the Coach-makers' will this year give the Fair such a specimen of their handy work, as will tell with the public, and we shall endeavor to be there and take such notes in our "Coach-Makers' second visit to the Crystal Palace" as will both entertain and instruct our numerous and distant readers. Exhibitors wishing further information on this subject will address "Wm. B. LEONARD, Cor. Sec., and Agent American Institute, 351, Broadway, New York," to whom invoiced articles to the Institute should be directed.

E. M. S.

For Saladee's Magazine.

RAMBLINGS—NO. 6.

MR. SALADEE—*Dear Sir*:—My last left me in the young city of Chicago. I had not been there long before I caught the flame, and managed to keep pace with the place and people; however, in so doing I soon found the bottom of my carpet sack; my stock of Magazines being entirely exhausted; and after three ineffectual attempts with the telegraph to obtain more, I gave it up and again set my face towards Columbus.

My stock being again replenished, my next stopping place was Buffalo, N. Y., and making the acquaintance of quite a number of Coach-makers, and also of Messrs. Pratt & Letchworth, merchants, whose stock of carriage material is very extensive, embracing every article of material usually kept for the accommodation of carriage makers.

From Buffalo to Niagara Falls, and to my surprise not a carriage-maker in the place; I believe the first of its size I have ever yet visited. However I spent the day in looking at this most grand and sublime of all Nature's works. I paid my quarter of a dollar commutation at the bridge which crosses to Goat Island, and am now on the free list for one year. I crossed the river at Suspension Bridge in the cars, paying the usual toll, 25 cts. Strange to me that Railroad passengers should be stopped at bridges, and extra fare exacted from them; but so it is there. Having crossed the bridge, I supposed it was now all right, and as Hamilton was my next stopping place I should soon be there; but lo! another disappointment! At the depot on the Canada side our baggage must be examined, as we were about to sojourn for awhile in Her Majesty's dominions. At the depot the command was given, "trunk lids up!"—mine with others was exposed to the rabble, who seemed to enjoy the (to them) sport of detention and of knowing what each suspicious package might contain. After Her Majesty's (most excellent) servant had satisfied himself as to the contents of my trunk, I was informed that I could not pass but by a permit, to obtain which I was obliged first to present my invoice to a broker, and then after a long delay to present it to another office and have it stamped, and so pass my magazines. I told him I thought it uncalled for as my goods were provided for: and were not subject to duty; but I must have a pass, and could not get possession of my baggage until I had complied. Well, I did, and after an hour's waiting I got the pass, paying \$1.50, but when I reached the depot the cars were gone, and, as a matter of course, I had to wait until the next train, which brought me to Hamilton at or near midnight. I rather think that Her Majesty's servants took all this trouble upon themselves for the few shillings obtained under Custom House seal; if not so, then other officers have failed in doing their duty, as I have before passed in without any detention, more than to show what my trunk contained.

In Hamilton—by the way just the snuggest place I have yet seen, on the other side of the Lake—I called on the carriage makers generally; Messrs. Williams & Cooper are the largest, and are doing a fine business, building good wares. In this factory I received a good club of subscribers to the Magazine; also at Fuller & Smith's. I was somewhat surprised to find New Jersey Hubs in this place, but upon reflecting that our New Jersey elm is so far superior to any that grows, and also the great care taken by Mr. John Umpson, of Rahway, N. J., whose make of hubs they were, I was not so much astonished after all, and should not be surprised to see them come into general use.

From Hamilton to Dundas, where I was most pleasingly relieved of some of my stock, receiving in return their par value. From thence to Brantford; where I had the pleasure of making the acquaintance of Messrs. Smith & McNaught, and their very gentlemanly superintendent, Mr. Culver. In this establishment I felt quite at home, and spent two very pleasant days with them and families, and shall not soon forget my visit to Brantford, and the many acquaintances made while there; in their factory I received thirteen subscribers to the Magazine. I discovered that the Sprout Spring was no stranger in this factory, having them in use, and many more carriages are being made with them attached; Mr. McNaught himself using one of them, which with all that have been sold, give the utmost satisfaction.

From this place I passed through Woodstock, and found three clever shops; Messrs. Campbell & Baddion having but just commenced the business on their own account, with a good prospect before them. I would wish them great success in guiding their ship over the great ocean of business. From here to Ingersoll, where I found not only friends, but subscribers.

London was my next point, and upon arriving at that city found it, as the original, situated upon the river Thames, though but a river in miniature compared with the one from whence it derives its name. Here I found that clubs had been made, and that subscribers were receiving their Magazines regularly, so I had little to do but look around and see the sights, and push forward, which I did, to St. Thomas, in the old fashioned way, by stage coach, and after a few hours ride arrived as above. I had but little trouble in making the acquaintance of a goodly number of our fraternity here, and would here acknowledge my indebtedness to Mr. R. Taunton, for the interest he manifested in behalf of the Magazine, hoping he may be richly repaid as he shall continue to push forward in the building of carriages. In this place I received a goodly number of subscribers, and then wended my way to Orwell; from thence back to London again on the 3d day of July. How to get through with the "Glorious Fourth," and get up an excitement suitable for the day was now a part of my trouble, but I consoled myself with the presumption that our folks at home were doing justice to the memory of "76," and to them I felt willing to relinquish my portion of the day's festivities under the present circumstances.

From London to Chatham, where I had the pleasure of making the acquaintance of Mr. John Sheriff & Son, and also of many of his men; and thence to Windsor, where I had not the least difficulty in passing the Custom House officer, and passed over to De roit, my first visit to this city. Here I was most happy in making the acquaintance of Mr. John Patton, who I was pleased to find doing a very fine business under the supervision of my old shop mate, Mr. Stewart Moore, who I found to be the same agreeable Stewart he was some years ago when we worked beside each other in New Jersey. Mr. Moore soon made me up a club of

fourteen, for which as well as many other special favors shown me, I shall long remember my first visit to Detroit with pleasure. Hoping to see them all again more prosperous and happy than ever, I subscribe myself

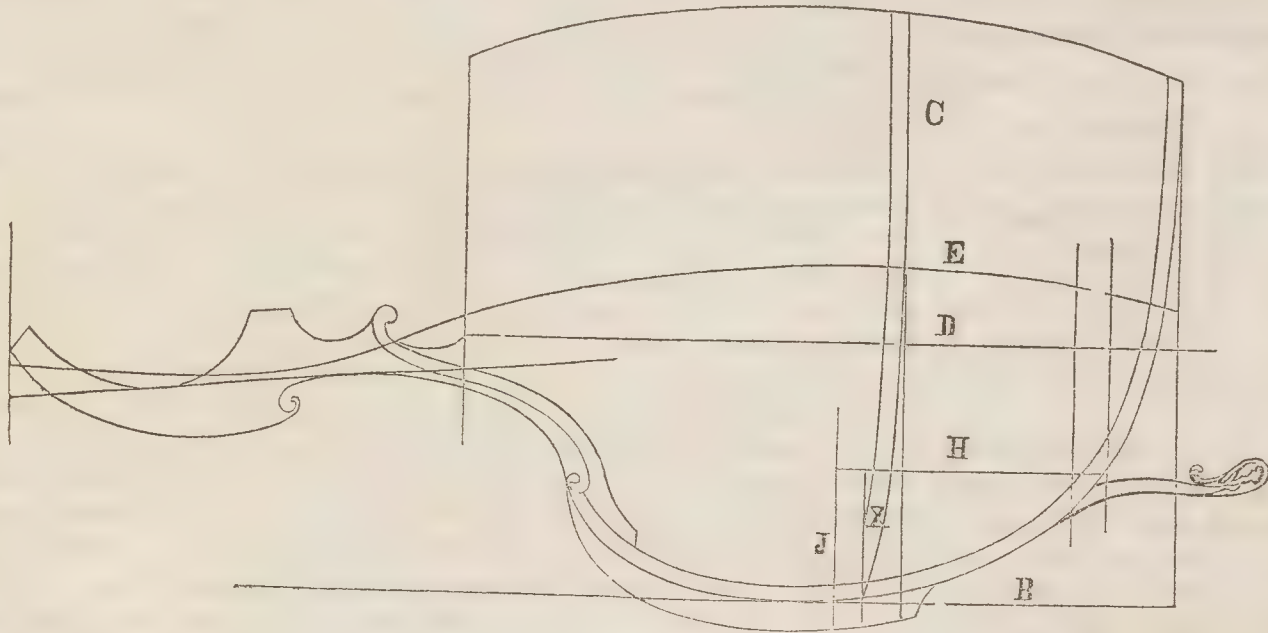
Yours, Respectfully,

ABR'M TERRILL.

NATIONAL HOTEL, Detroit, July 1856.

SQUARE RULE—CONTINUED.

For the non-appearance of my contribution in Aug. No., I would say, that the original was lost by myself in July while traveling, and since then from sickness, was unable to replace it in time for that No.



In reviewing my former contributions to the Magazine on our system of body making, I find that as yet I have said nothing in regard to obtaining the correct lengths of the various cross pieces, consisting of bars, seat rails, and also end rails. In all our cuts we have placed the kant board directly in the body, supposing it to be one half the width of the body from base line B to the different lines in the kant board; it is not, however necessary in practically operating from a draft board, but I have thus shown it in order to bring it directly in connection with the drawing.

The kant board is usually on a small and more convenient board of sufficient length and width, for the purpose for which it is used only. In ascertaining the proper lengths of each bar or rail, we are first to make the back seat rail the length we wish to have the body on the seat, which for this class of work is about 3 feet 8 inches; measuring this length across we now proceed to obtain the bevel of the shoulder of the rail; line H being the top of the seat we place our rule on the draft board, and measuring from line H to base line B, now carry forward this measurement to about or near the middle of front quarter, and with your awl make a mark on the draft board; then place your seat rail or draft board with the face side down, and where you square across the top side, place this directly at the inside line of standing pillar, the top side on a line with line H, the other end you will be particular to have on a line with the mark that you have made near the middle of front quarter; now with your cutting knife make a nick on the underside of the bar at the inside line of the standing pillar; while your rail is thus lying on the draft board make a nick where line J passes under seat rail, and as the end of this body is framed square, and the back corner pillars are placed 1 inch from the face of the bottom side, J line here representing the face of bottom side; by making a line parallel with line J, 1 inch therefrom; you will also nick this line on your seat rail. Now you have one half, and by reversing the ends of seat rail, and placing in the same position, and taking off the lines as before, you have the length of bottom bars and also of end rails, without the use of a rule, only in obtaining the width of the body on the back seat. The front seat rail will of course vary accordingly as the kant board may; in this case it will be somewhat shorter than the back one. The end rails for the front will be the same length as the bottom bar; as the front corner pillars are framed flush with the face of the bottom side. The length of the bars are obtained in the same way, without the necessity of putting the body together, by deducting the concave from the length of the bottom bar.

By laying out regularly the bows or curves for the top, on the kant board, adding twice the width of the kant board to the length of the bottom bar, you have the exact length of each bow and also

the bevel from the end from line E, thus giving you the advantage of all your widths without using rule or putting your work together.

T.

A THOUGHT FOR CARRIAGE IRONERS AND ALL WHO USE THE HAMMER.—Have you ever thought of your hammer as the universal emblem of mechanics? If not, permit us to remind you that with it are alike forged the sword of contention and the ploughshare of peaceful agriculture. In ancient warfare, the hammer was an

important weapon, independent of the place which it formed. The hammer is the wealth of nations. By it are forged the ponderous engine and the tiny needle. It is an instrument of the savage and the civilized. Its merry clink points out the abode of industry; it is a domestic ditty, presiding over the grandeur of the most wealthy and ambitious as well as the humble and impoverished. Not a stick is shaped, not a house is raised, a ship floats, or a carriage rolls, a wheel spins, an engine moves, a press speaks, a viol sings, a spade delves, or a flag waves, without the hammer. Without the hammer, civilization would be unknown, and the human species

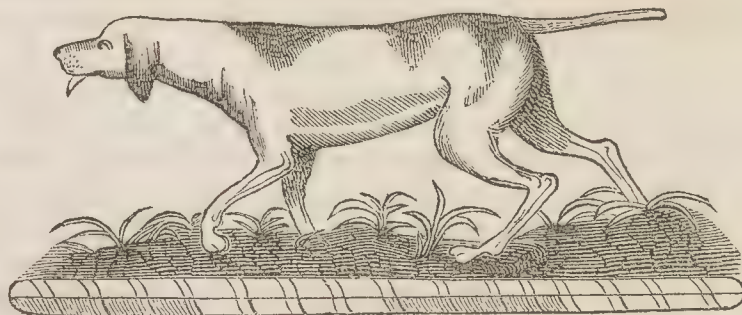
only as defenceless brutes; but in skilful hands, directed by wisdom, it is an instrument of power, of greatness and true glory. You have reason therefore to rejoice in the music of your hammer.

Painting Department.

PAINTING—BY A PAINTER.—NO. 8.

The following are the designs referred to in my last.

No. 1.



No. 2.



No. 3.



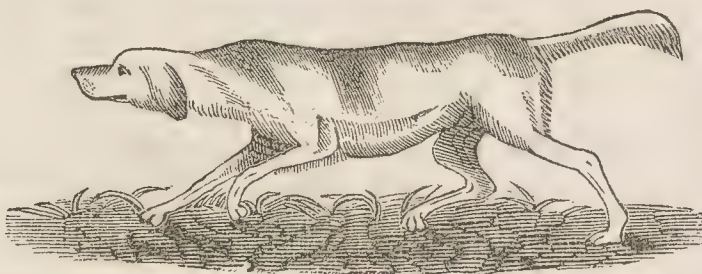
No. 4.



No. 5.



No. 6.



No. 7.



TRIMMING DEPARTMENT.

M. G. TOUSLY, OF OHIO, EDITOR.

A Scroll design for Cushion fronts, very elaborate.



Another very similar but a trifle lighter.



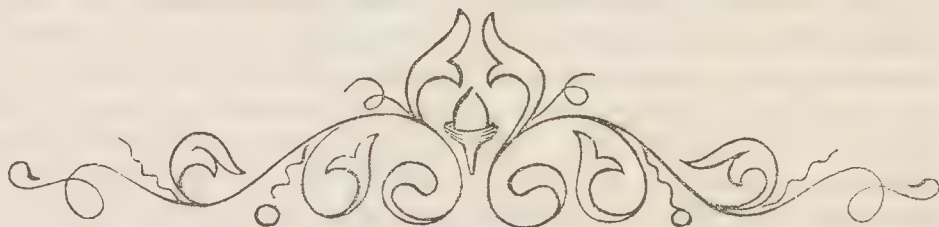
Plain Scroll.



The following unique design is sometimes stitched on the side of a Trotting Buggy Boot.



Extended Double Scroll for Boots.



Single extended Scroll.



SCROLL DRAWING is an art that requires not only considerable study, but a native talent which many first class practical mechanics lack. Being a purely ideal thing, of which the domain of external nature furnishes no models, we are left to the resources of creative fancy alone for their production, yet certain rules of order and proportion must be observed, or their defect is apparent to every cultivated mind. A certain proportion must be obtained, the sweep must be true, the curves and offshoots must bear a certain resemblance, and the attachments of the various parts must be graceful and in keeping with the curve of the body line.

A dozen persons may attempt to enlarge the drafts herein laid down, and each make a figure embracing the same style of parts, and in the same order as the original; yet the relative proportions be so lost as to render three-fourths of them unfit for use. It requires a good eye and a practiced hand to enlarge them. Scroll designs when well executed, are strangely pleasing to the eye and bear about the same relation to sprig and vine drawing that fiction does to fact in the world of literature. We shall continue to sketch scroll and ornamental designs for stitching, cutting, and inlaying, and would solicit this kind of contributions from such draughtsmen and designers as feel a disposition to give and take through the medium of the Magazine.

PROSPECTIVE DRAFTS.—We like to see an occasional prospective draft. They are not only an ornament to the columns of the Magazine, but are in many cases really useful by way of illustrating a finished part; hence we shall not only give an occasional one ourselves, but would solicit that style of contributions from such of the

craft as are competent to play the artist as well as the mechanic. But inasmuch as perspective drafting is not properly a branch of the trimming business, we shall confine ourselves more particularly to skeleton and outline drafts. This, in our opinion, not only displays better taste, but opens the way for that very numerous class of trimmers who only understand drafting as connected with their own respective calling, to work upon equal terms in advancing the interests of their own department.

If we are correct in our opinions, too free a use of perspective drafts renders the department too aristocratic in its bearing, making it a sort of a second "Harper" rather than a "Mechanics' Own," the only effect of which is to frighten away contributors. Now, the true intention of the Editor of this Magazine is to render this as well as every department a free and easy affair, in which every true man and good mechanic can feel perfectly at home to ask for light or advance any opinion which he may think beneficial to the interests of his brethren, upon the good old "free speech and fair play" platform, and to defend it from charlatanism and quackery to the extent of his ability, allowing every one to hear, see and decide for himself in all matters of either taste or expediency. But in all contributions we wish our brethren of the craft to bear in mind the true intent of a draft and make use of them only when a clear and simple arrangement of words fails to convey to the mind a proper idea of what is intended.

IRONING OF TOPS.—Yes, in the name of the craft, and for the good of the public, we feel it to be our duty to give top ironers and superintendents a lecture on top ironing. Of all the defects which the clear foresight and inventive genius of the nineteenth century has left to still mar the beauty and perfection of carriage work, this stands forth the most prominent. It seems that in the stretch for new and wonderful things the mass of mechanics are prone to overlook the commonest principles and philosophies connected with the uses of the old; when perhaps a proper attention paid to reducing to a system and properly executing the old, would render the introduction of the newer and cruder styles to supersede them, useless. How to give a carriage top a proper and proportionate support is a question that has to do with the beauty and durability of all its parts more than any other one, yet it is a common practice among at least nine tenths of the carriage makers throughout the country to utterly disregard every principle of utility and common sense in the ironing of tops; sacrificing both the beauty and the durability of a whole top to a feeble and narrow idea of the shape or length of a certain iron. Taste is the product of education, and those who are not sufficiently comprehensive in their range of views to take into consideration the general good of an article in all its parts are apt to settle down into weak and feeble fancies relative to certain *pet parts* which must be gratified though the heavens fall. The Chinese must wear a foot of certain dimensions, though it destroys all physical and mental energy, and in the end renders their general features as ugly and repulsive as the cherished part is to them perfect and comely. But this barbaric custom is no more ridiculous or out of all true taste than is the evil of which we speak. The question then is, not what kind of iron work is the handsomest, but what kind of iron work makes a top the handsomest and best; after this is ascertained, no other kind will look right for the simple reason that they will look, as they are, imperfect.

In the first place, we discover that the head lining has a continuous strain upon the bows for upwards of five feet; each tack for that whole distance adding its mite to the contracting force that acts upon the bows; opposed to this is a strain of about 14 inches on a side, in all 28 inches from the back bow to the seat. Now, if the top is ironed from the prop iron to the back bow and thence forward, each is held to its own proper strain; but if ironed from the seat prop to the back middle bow, there is nothing to hinder the strain of the two from equalizing. If, then, the strain of the back is not more than twice as great as that of the top (a thing, by the way, which cannot be calculated sufficiently nice to make the one just offset the other) why, of course, the back bow will raise, throwing the outside of the top all out of place. The back quarters twist the cover from the back to the back middle bow, either falls in or wrinkles badly, and an extra strain is given to the cord from thence to the front bow; and it would be well if it ended here, but this is not the case. As the top grows older, the difficulty increases, for the sun and rain affects the top, causing it to shrink more than the quarters, throwing the back bow more and more out of

place, until the corners crowd the lining, and the two bows nearly meet. In this condition the top presents so unsightly an appearance that it must be renewed, if not, it soon whips itself to pieces, and is gone. Why in the name of common sense should this miserable passion be tolerated? What sense is there in putting the prop on the back middle bow? Just think of it; a few stitches in the head lining, a few tacks in the top lining, and the coupling of the leather by the prop is all that holds it erect; just about enough fastening in all to pull the bow to its place in spreading the top. How ridiculous to fasten the prop to so feeble a support. Ask a native from the wilds of Africa how a top should be ironed, and after seeing one put together, his own native sense would suggest that it should be braced from one direct and main support to the other. Many expedients have been resorted to to prevent this equalizing process, and still retain the same way of ironing. The most sensible one of all is to strap the top down from the front, leaving off the inside slats, thus giving it a chance to equalize upon taking off the outside ones and previous to putting on the outside cover. This leaves the job too shackling and unsteady to work at comfortably, and is at last but a bungling way of mending a bungle, and the after evils follow just the same. On roll up tops in particular, this middle bow ironing is objectionable, as it not only cramps the curtain under the iron, but the irons obstruct the sight. Many, however, have long since taken the hint, and adopted the proper plan in ironing this style of work. But even when the proper method is adopted, a top may be almost ruined by improper straining. A top should never be strained so as to move it from the place where the trimmer leaves it, neither should it be allowed to recede from it. The practice of falling a top in order to take the position of the joint is not only useless, but wrong. In the first place you can get the length just as well without it; in the second place in falling the top you not only loose the strain so that it is difficult to tell how the irons do set, but it wrinkles and musses the job unnecessarily. If the top to be ironed is a "roll up" take a $\frac{3}{4}$ inch chisel and cut a slit between the two rows of stitching at the top of the side vallance on the back bow, insert the lower clip of the prop iron, downwards through the vallance and on the bow; then raise the vallance and put in the bottom screw; drop it and put the next through the leather, sinking it well. Screw on the top as usual, put on front prop same manner, then take your measure by either string or straight edge. Take the length of your back iron and deduct off the length from the bow pivot to the back prop and then divide the distance from thence to the end of the measure, and you have the precise and proper locality of the joint. For the horizontal iron first find the centre of the measure, then find the difference between the height of the two prop irons from the bow pivot, divide the distance, and throw the joint just so far ahead of the centre and you have the locality of that joint.

This is the only real scientific rule for obtaining the locality of a joint by measurement, and bearing within itself as it does a never failing scale of differences, it can be relied upon with any ordinary bending of joints. It is much quicker done than the ordinary method of falling the top, and if by any chance it should fail on account of the bending, it can be raised so that a like occurrence may never again happen. The same rule will apply to tops where the prop sets on the back middle bow, with this difference: the joint of the back iron must be placed from $2\frac{1}{2}$ to 3 inches lower in order to have the iron lay horizontal when down; the bow, of course, does not lay down as close to the iron, and the extra length of the short part is to carry it up to the bow. As I stated the irons should be put on before the top stays come off; they should just shut down snug, and the taking off of the stays will give it sufficient spring. Iron your tops from back to front, following the directions here laid down, and they will be none of the worse for ironing, remain handsomer and wear better than in any other manner.

CONUNDRUM.—Why is a Coach Trimmer a practical joker? Because he is in the daily habit of making points.

Neatness is an indispensable thing to any who would become eminent in his profession as a coach trimmer. A dirty bench and a black, clumsy set of tools may answer in a smith shop, but looks bad in a trim room.

Clean your patent leather with a Chamoise skin. There is nothing equal to it; its cost is about 37 cts., and it will last for years. When it becomes dirty wash it with castile soap, and when dry

stretch and rub it till soft. If by any chance it should get too hard for this purpose, the Painter can finish it.

HAND IT AROUND.—Please show this copy of the Magazine to as many of the craft as possible, and solicit subscription. Too few trimmers take the Magazine. We wish that we could have the satisfaction of knowing that when we take pains to write upon useful topics that all could see and partake of its benefits. It has been with great expense that the editor has enlarged and improved this department, and no pains will be spared to render it both pleasing and instructive, and we hope that all will cherish kind and liberal feelings, fully assured that one man's light becomes none the less by lighting his neighbors from it. The Magazine will henceforth become an indispensable fixture to every trimmer's library; even though they could read their neighbor's, they should have it to bind for future reference. Dispense with "Harper" or some other publication of a lighter character, and patronize your own Magazine.

BROWN'S PATENT CARRIAGE.

The undersigned takes this method of introducing to the craft his new mode of constructing carriages, for which he received letters patent, Dec. 12, 1854. The following engravings represent the improvement, which consists in sustaining the body on Csprings, by means of thorough braces which are attached to said springs, and to two perches that serve to connect the rear axle to the bolster in front. By the above combination the elasticity of the perches, together with the Csprings and thorough braces, produces a steady and agreeable motion, not equaled in any other arrangement. These carriages possess many desirable qualities, which are so clearly understood, that from the first sight almost every one is favorably impressed with their appearance, and the little time they have been in use has given them an unparalleled reputation.

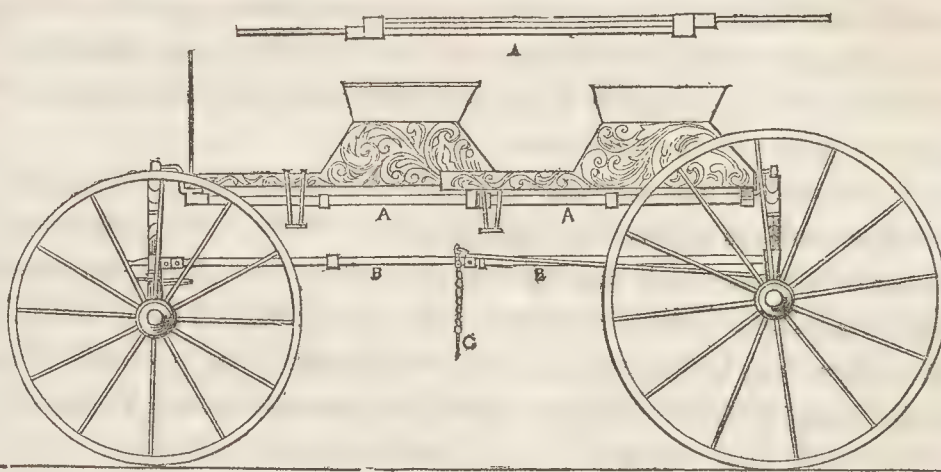
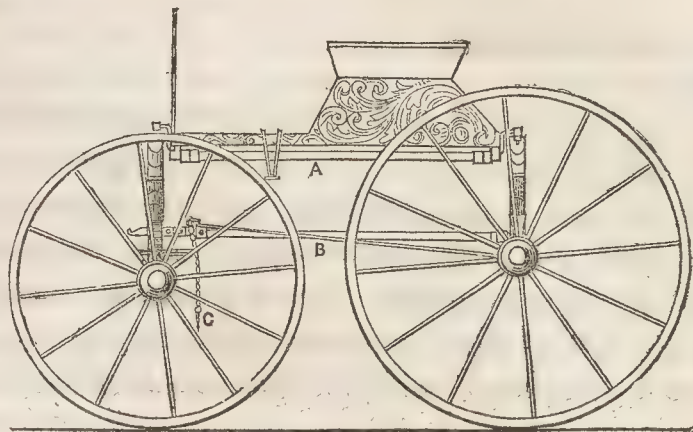
The advantages obtained by this improvement are—1st; its simplicity and cost of construction, which is at least \$15 less than the elliptic. 2d—extraordinary lightness, being much lighter than any other spring wagon. 3d—durability; being more simple and less liable to come to repairs. 4th—a superior steadiness of motion; no side vibration, and thus recovers from any sudden shock, therefore making it superior to any other arrangement for fast driving. 5th—its simplicity of construction renders it void of all rattling, as there are no joints to create such an evil. 6th—its graceful appearance, the springs and their connections being extremely light and easy in form. Mr. Brown is a practical carriage-maker, doing business in Dorchester, about 4 miles from Boston, and has within the last three years built to order over three hundred of these wagons, for the most influential men of Boston and vicinity, all of which have given entire satisfaction. All made very light; some as light as represented in the engravings, and with such reliable proofs before him of the superiority of these carriages, he has no hesitation in recommending the improvement as being worthy the consideration of all builders of good carriages, and offers for sale upon reasonable terms the right to manufacture under his letters patent, for which application may be made to the undersigned at his factory on Bowdoin Street, Dorchester, Mass.

B. F. BROWN.

ROSENCRANTZ'S EXTENSION WAGON.

This improvement was patented May 6, 1856, by Mr. E. D. Rosencrantz, of N. Y. City, and as illustrated in the engravings, shows that by the use of a sliding-bar-perch and body, a one seat buggy can be

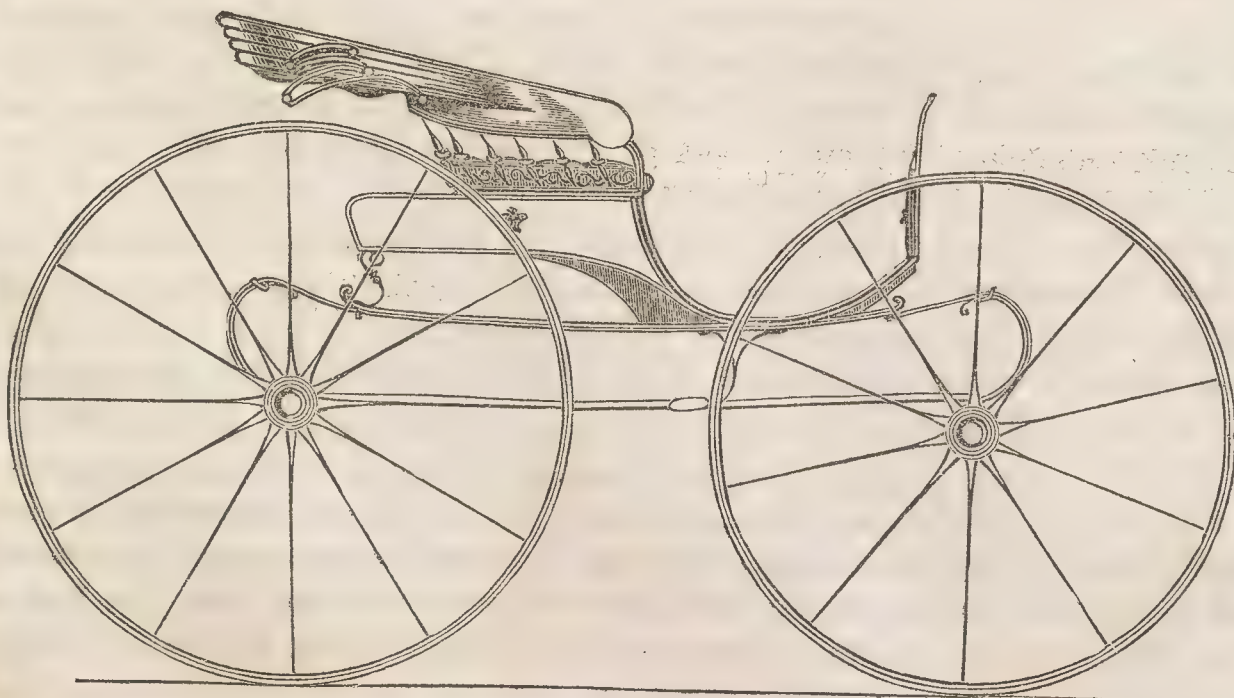
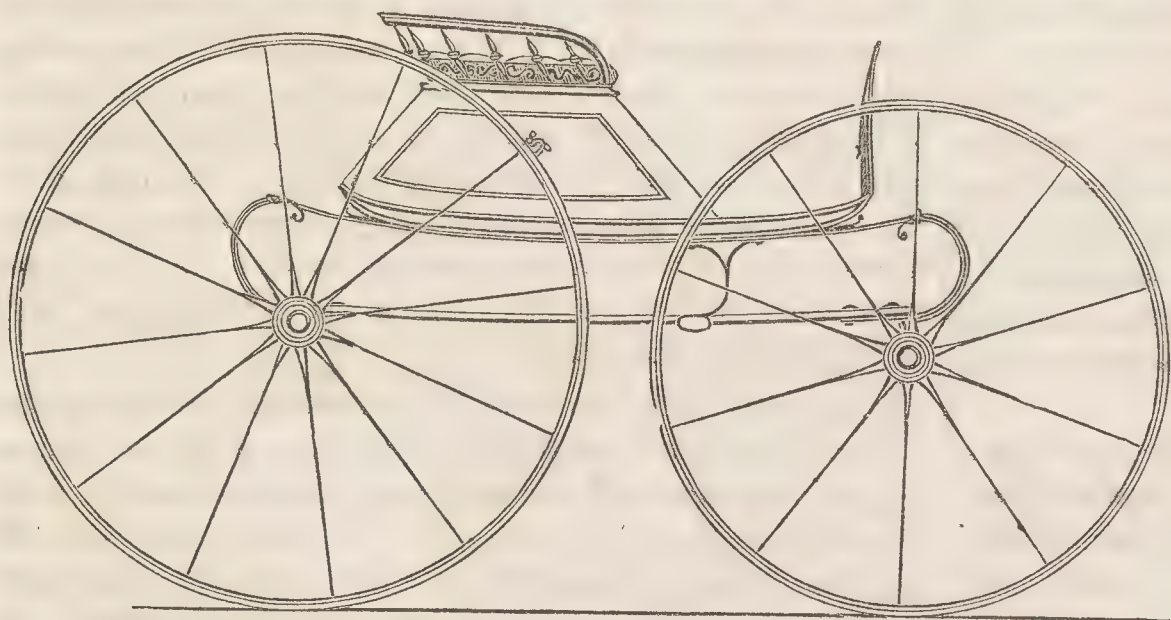
transformed into a two seated wagon, thus making a convenient family vehicle. Mr. Willard H. Smith, 308½ Grand Street, New York is the agent for this invention, to whom applications for shop, county, or State rights should be addressed. S.



We have just received the melancholy intelligence that our worthy contributor to the "Trimming Department," Mr. G. D. McLANE, (whose indisposition was noticed in our last) is dead.

THE CLINTON CARRIAGE.—In this No. we give enlarged views of the "Clinton Carriage" as illustrated in March last, and to which No. we refer our readers for any explanation of the same. The proprietors of this patent are Messrs. Goodale & Gibson, Clinton, Mass. We notice, however, by circular received from the latter gentleman, that he has become sole proprietor. All communications relative to this improvement should be addressed to A. J. Gibson, as above. All the various connections illustrated in this issue can be purchased in practical shape, and on the most reasonable terms; and we doubt not that they will render entire satisfaction, as they are manufactured under the especial supervision of the patentee.

OUR TRIMMING DEPARTMENT.—Those of our subscribers belonging to the trimming fraternity will doubtless be much gratified on seeing the marked improvement manifested in their department of this Magazine. From our knowledge of Mr. Tousley as a finished workman in the art of coach trimming, we are warranted in saying that he will so conduct this part of the Magazine as to merit the universal approbation of his brother craftsmen; but at the same time we would earnestly solicit for him the cooperation of as many as feel competent to the task.



EDITOR'S TABLE.

SEPTEMBER, - - - - - 1856.

THE PAST, PRESENT AND FUTURE.

We are extremely fond of recounting the manners and customs of the past, comparing them with the present, and speculate on what we will be fifty years hence. This is frequently a source of interesting amusement. But it is seldom we reflect that in half a century hence, as curious anecdotes may be told, and as humorous descriptions given of the fashions and follies of the present day, as is now told of the half century past. Many things that are now considered fashionable and proper, will, no doubt, excite no little astonishment and afford a fund of merriment to the denizens of our country fifty years hence; at least we hope that many foolish customs, health-destroying practices and vicious habits, against which the voice of warning and the pointed dart of ridicule are alike unavailable, will in that time become as antiquated as the breeches and shoe-buckles of our ancestors.

It might cost us too much to tell all the things that we think will become obsolete and ridiculous in the year 1906. We have something in common with him who confessed that he lacked the courage to willingly become a martyr. We do not like under all circumstances to brave public scorn; and at the same time we would like to be along with the advance guard of those who are progressing towards the good and the true. The difficulty is to know to a certainty who belong to that advance guard, for many pseudo-reformers are gone out into the world. Soi-distant reformers who affect to despise the popular clamor, are as often in the wrong as the great public which laughs at, and sometimes abuses them.

These considerations admonish us to be cautious. Yet we are perfectly aware that there are truths in regard to human progress which it would be neither safe nor wise to proclaim.—Some things must be kept in the head or the heart altogether; some will bear to be hinted at; and some we may begin to discuss and reason about. "There is a time for every thing," says the wise man; and no doubt he had some modern reformers who seem to run before they are sent, in his eye, when he wrote that.

Experience in the past teaches us that it is rather dangerous to prophecy, unless our predictions chime in with the popular feeling. It is true that feeling is liable to change, but while it lasts, it is fond of power, and quite tyrannical in its exercise. If we cannot safely exercise our gift of prophecy, if any we have, we may at least be permitted to wonder whether certain things will or will not take place, without offending any body.

We wonder, then, whether, fifty years hence, the ladies will use silk and satin for sweeping the streets; and whether they will walk out in muddy, wet, sloppy weather, in light, thin, kid shoes, for the purpose of improving their voices and adding to their health and beauty. We are curious to know, whether at the close of the next half century, there will be any Woman's Rights Conventions, and whether in that clause of our State Constitution which gives "every white male citizen of the age of twenty-one years," a right to vote, the word "white" or the word "male," or both, will be struck out, or whether it will remain as it is.

It would be a great satisfaction to us to have a talk with a "live editor" of the mechanical fraternity, in 1906; and it would gratify us exceedingly to ascertain from the aforesaid editor whether he finds it safe, without endangering his supply of daily bread, to speak out in plain terms his honest convictions of truth and duty,

whether he has any subscribers who threaten to withdraw their names and do all in their power against him for having indorsed some one of the best improvements of the age, or whether he is compelled, like John Bunyan, in Bedford Jail, to serve the interests of that department to which his journal is devoted, and the cause of truth and humanity, by telling *dreams*, throwing out sly inducements, and rehearsing his curious *wonderments*. We are really curious to know, and frequently wonder whether these things will be "fifty years hence."

Editorial Chip Basket.

BY E. M. S.

This fellow picks up chips, as pigeons peas.—SHAKESPEARE IMPROVED.

THE STORY OF A LOYAL GOVERNOR AND HIS COACH.—We learn from the *Boston Post Boy* of Nov. 11, 1765 that at least one coach was used in New York by Lieut. Gov. Colden. This was at the time when the odious Stamp Act of the British Parliament was about to be enforced upon her American Colonies, for the people "proceeded to the foot of Wall Street (Fort Walls, as it was then called) where they broke open the stable of the Lieut. Governor, took out his coach, and after carrying the same through the principal streets of the city in triumph, marched to the Commons, where a gallows was erected; on one end of which was suspended the effigy of the person whose property the coach was. In his right hand he held a stamp'd bill of lading, and on his breast was affixed a paper with the following inscription: '*The Rebel Drummer in the year 1745.*' At his back was affixed a drum, the badge of his profession; at the other end of the gallows hung the figure of the Devil, a proper companion for the other, as 'tis supposed it was entirely at his instigation he acted; after they had hung there a considerable time, they carried the effigies, with the gallows entire, being preceded by the coach in a grand procession to the gate of the Fort, where it remained for some time, from whence it was removed to the Bowling Green, under the muzzles of the Fort guns, where a bon-fire was immediately made, and the Drummer, Devil, Coach, &c., were consumed."

JONATHAN'S ENTERPRISE.—We observe that our enterprising friends in Boston are bearding the British lion in his own den, by shipping to Australia 50 wagons, besides a goodly number to the British Provinces on this Continent. They have also sent 9 to the Sandwich Islands. Some of our neighbors in this city (New York) are filling orders for light work for England and France. We think that our cousins over the "big pond" will soon have *striking* proof that Jonathan "is some" at building carriages, notwithstanding the many sneers he has hitherto aimed at us. Before John Bull roars again about what he *can* do at making carriages, and what we *cannot* do in the same line, we would like to see *better* specimens of his production, than has ever yet reached our shores.

NATIVE MALLEABLE IRON.—It is said that malleable iron is to be found in a state of the greatest purity, in large deposits, on the western coasts of Africa, and in Siberia. Not a trace of carbon can be detected in it, and it is distinguished from that quality of iron denominated meteoric, by being entirely free from mickel.

THE MAIL 100 YEARS AGO FROM NEW YORK TO ALBANY.—On the 30th day of July, 1756, it was officially announced from the New York Post Office (Dr. Franklin then being P. M. General) that there would thenceforth be a weekly mail from New York to Albany. It was to leave New York Monday, Aug. 9, and Albany on Thursday, of the same week and was to be continued weekly du-

ring the summer. The mail was advertised to be closed every morning at 9 o'clock on each day of departure. Now, instead of two mails per week for Albany, we have two per day, except Sundays.

A MONSTER CO.—A new Hackney Carriage Company has just been started in the city of Paris with a capital of \$1,420,800, in shares of \$17 76 cts. each.

THE NEW YORK COACH-MAKERS IN 1788.—In a public procession in honor of our Federal Constitution it is recorded that the Coach and Coach-harness makers had a stage at the head of their division drawn by ten black horses, three postillions dressed in yellow and jockey caps trimmed with yellow. Four workmen on the stage at work in the different branches. A flag extended across the stage representing a coach-maker's shop, with doors open; hands at work and a coach finished. At the door, a vessel lying at the wharf taking on board carriages for exportation. Over the shop, the Union flag; over the ship the nine federal members from this country. In the centre the coach and coach-harness makers' arms, on a blue field, three open coaches supported by liberty on one side, holding in her left hand a cap of liberty; on the other side by Peace, holding in her right hand a cornucopia of plenty; Fame, blowing her trumpet over their heads; motto, "The federal star shall guide our car." A genteel green monument supported by ten pillars, with an union in the centre; Crest on the top of the arms, and an eagle soaring from a globe. In addition to the above, the Saddlers, Harness and Whip makers carried in a separate department an emblematical figure of their profession; a horse decked out with an elegant saddle and harness with embroidered tassels, led by a groom dressed in character attended by two black boys, and a long retinue of bosses and journeymen following in their rear.

THE AIR COACH.—In our April Chip Basket we gave a speculative article on the bomb carriage, &c., from a popular Magazine, which was there described as being an *au fait accompli* a thousand years hereafter. We have heard something in our lifetime about castles being built where the clouds ought to be, and suspect that Signor Augius' 'car of metal' will have to be built of the like *solid* material. One Turin, inventor, has published a work entitled *L'Automa Aerio*, in which he puts forth the idea of his having solved the hitherto ineffectual problem of controlling the movement of aerial cars. Heated air is his motive power, and aluminum is to be selected (being strong and light) for his metal car. This dreamer expects to see the time soon come when voyages in the air will be as common as they are now by sea. May his shadow never be less!

THE CAB USED AS A DRESSING ROOM.—A foreign correspondent writes to a cotemporary, that an Englishman living forty miles from Paris, had an invitation to dinner in that city. With a carpet bag in hand, filled with the necessary linen, he started, intending to arrive an hour before dinner time and repair to the rooms of a bachelor friend to shake off the dust and to dress. But unfortunately an accident happened on the road, which detained the train till dinner time. Our traveler took a cab, and to save time concluded to change his dress in the hired vehicle. But he had no sooner shifted for the change to his "most intimate garment," when the cab suddenly upset on the road. A policeman ran to the door and opened it to lend his assistance, when he found the passenger dressed only in the covering natural to every Englishman! The policeman judging that the attire of our visitor, was inconsistent with the laws of decorum, hurried him into another cab and con-

veyed him to the police station for being culpable of a shocking exhibition.

THE COACH HIRE OF THE N. Y. CITY FATHERS.—The past year 'the dear public' have been compelled to 'shell out' \$10,330 for the childish indulgences of our *step-city* fathers \$1,798 only were expended of the above sum by three individuals, and when we consider what a numerous family of *wayward* daughters,—who only *walk* by gas-light,—are fostered by these municipal parents, we think ourselves fortunate that the sum is not greater.

THE NEPHEW OF THE UNCLE'S STATE CARRIAGE.—It is reported that the French Emperor displays more riches and taste in the appointment of his state equipages, than every other monarch in Europe. The carriage (according to *Galignani's Messenger*) in which the Imperial Prince rides is that which was used as the state carriage at the marriage of their majesties, but the present state carriage of his majesty is altogether new, and for extreme richness and elegance cannot be matched. It is absolutely dazzling with gilding and painting. The upper part is open, being merely ornamented with plate glass, so that the persons occupying it can be perfectly seen by the spectators. On the panels of the doors are painted on an imperial mantle covered with bees, the Napoleonian arms surmounted by the crown, surrounded by the cordon of the Legion of Honor, and supported by genii. The four side panels have symbolical figures taken from religious subjects. On the front and back are again the arms of the Empire supported by genii. All these paintings have been executed by first-rate artists, and in the most beautiful manner. The body of the carriage is a mass of gilding and the upper part has a group supporting the Imperial crown.

We clip the following from a late No. of the Cincinnati *Daily Commercial*. It speaks well for our old friend Mr. Chapman:

"TO THE PUBLIC.—After thoroughly testing, for more than one year, 'Chapman's Patent Elastic Anti-rattling Carriage Shaft Fastener,' we find it to be a most valuable invention, and the best thing we have ever seen to prevent the rattling, and secure the bolts from loss at the shaft clips. We have adopted it, and use it on all carriages made by us.

I & B. BRUCE, & CO.,
Carriage Makers, cor. Third and Vine sts.

ANSWER TO CORRESPONDENTS.

R. A. C., of Me.—Some weeks ago while we were in the Patent Office, we saw "rejected models" on precisely the same principle of yours. Hence there is no novelty in the spiral spring for carriages; neither do we believe it would be practicable; nor can we conceive of any advantage its application would embrace over the ordinary springs now in use. Four years ago we saw a Concord Wagon the side springs of which at each end rested on spiral springs. It seemed to answer the purpose, but its complication was a very serious objection. So with yours.

E. T. & Co., of Ill.—We are now using in three different vehicles Smith's axles. They are certainly a superb article, and we doubt whether a better can be produced in this or any other country. For address see advertisement in this No.

J. A. T., of Wis., and A. R. & Co., of Ohio.—We cannot say whether Messrs. Dilworth & Co., of Pittsburgh have completed their arrangements, or not for the manufacture of cast steel springs and case hardened axles. We have not the least doubt but that the right article will be produced by those gentlemen should they enter into the enterprise.

P. N., of Miss.—You will save us considerable time and trouble by consulting the July No. of this Magazine.

C. W. B., of Vt.—We have, from what we have seen, so little faith in iron hubs, that we cannot consistently with our present knowledge of the same, recommend you to purchase the patent referred to. Better save your money or invest it in some better way.

A. S. E., of Conn.—You are mistaken about Hubbard having a patent for a cross coupling or any other kind of coupling for carriages.

J. R. M., of Ohio.—Mr. E. F. Shoenberger, of Marietta, Pa., has invented a whiffletree coupling which far surpasses that of yours, both as regards safety and simplicity. We are not certain, but are under the impression that Mr. S. has applied for a patent on his improvement.

G. W. S., of Mo.—We cannot give you any further information respecting Sarven's Shaft Coupling than that furnished in the advertisement, as we have never seen one of them nor an illustration thereof.

U. T. T., of Ala.—Your mode of oiling carriage wheels without removing the wheel from the spindle is old, and moreover the principle is patented. A. C. Garrett, of Boston, is the inventor.

T. S., of Ia.—As yet we are not informed what the price will be of Shoenberger's Shaft Coupling, nor where they are to be manufactured. However, we are under the impression that our old friend Leech, of Pittsburgh will have something to do with them.

THE COACH-MAKER'S MAGAZINE.



SOMETHING NEW!

**Campbell's
"PATENT GLASS BOX"**
FOR ALL KINDS OF WAGONS, CARRIAGES
AND BUGGIES.

All sizes made to order with Axle Arms perfectly fitted, from the smallest to the largest size bearings, and warranted to work *without* friction, with a small quantity of oil.

No. 14 Main Street, Cincinnati, O.
EDWARD CAMPBELL & CO.,
Proprietors.

P. S.—Our "Price List" will appear in the next No. of this Magazine.
E. C & CO.

Sept-1856

SMITH & VAN HORN,
No. 70 Beckman St., between Pearl & Gold Sts.,
NEW YORK,
IMPORTERS OF & DEALERS IN
CARRIAGE HARDWARE TRIMMINGS, &C.

HAVE ALWAYS ON HAND

Springs—all qualities.
Axles—all kinds,
Malleable Castings,
Carriage Bolts—best and common,
Patent Leather,
Enameled do.,
Painted Cloth,
Enameled Muslin do.,
Drills, do.,
Duck do.,
Broad Cloth—all colors,
Damask—Worsted and Cotton,
Orleans Cloth—Silk Stripe, do.,
Plain,
Brocadeles and Cotelines,
Curtain Silks,
Silk and Worsted Coach Hlace,
Fringe and Tassels,
Brussels and Velvet Carpet,
Oil Cloth Carpet,
Caleche Fixtures,
Spring Barrels,
Curtain Frames,
Coach and Buggy Lamps,
Lining and Saddle Nails,
Rein Hook Levers,

Brass and Silver Top Drops,
Curled Hair and Moss,
Turned spokes,
Morticed Hubs,
Bent Felloes,
" Poles,
Carriage Bows,
Bent Shafts,
Carved Carriage Parts,
Spring Bars,
Bands,
Locks,
Knobs,
Tacks,
Screws,
Joints,
Handles,
Files,
Buggy Wheels,
Sand Paper,
English Coach Varnish,
American do.,
" Brown Japan,
English Black Japan, for Iron Work,
Saunders' Axles; all descriptions
Wrought Iron Fifth Wheels,

As well as all other articles used in the manufacture of Carriages, S. & V. H. from their long experience in the business, think that their stock, which has been selected with great care and with a view to supply consumers, will, for quality and price, favorably compare with any other in the market, and solicit a trial from carriage manufacturers.

English Varnish and Japan, put up in 1 Gal. Tin Cans.—Price of Carriage Varnish, \$5.—Body, do., \$6.75, Japan, \$5.00, Enameled Leather Varnish, \$6 per Gal. [July 1856]

A. CAMPBELL.
COACH & SADDLERY HARDWARE
—AND—
SILVER PLATING MANUFACTORY.
No. 13, Light St., Baltimore, Md.

MANUFACTURES TO ORDER AND KEEPS CONSTANTLY ON hand, Carriage and Harness Mounting, of every description. Also, Coach and Leather Varnishes, of superior quality at Manufacturers prices. March-1856.

Wm. Wright & Co.,
MANUFACTURERS OF EVERY VARIETY OF
Railroad & Carriage Springs.
FROM THE BEST ENGLISH STEEL,
AND OF SUPERIOR FINISH.
Opposite Chestnut Railroad Depot.
NEWARK, N. J.
Orders solicited and promptly executed.
Prize Medal awarded at the Crystal Palace,
New York. Jan. 1856.

C. N. LOCKWOOD,
(Late Eagles & Lockwood,)
COACH LAMP MANUFACTURER
AND SILVER PLATER,
16, MECHANIC ST.,
NEWARK, N. J.

THE LARGEST ASSORTMENT IN THE UNITED STATES, embracing over 100 different sizes and patterns of Coach and Buggy Lamps.
Engine and Signal Lamps, Coach and Cartel Mouldings, Curtain Frames, Dashes, Railings, Branch Irons, Handles, Pole Hooks, Tuft Nails, &c., &c., constantly on hand, at Wholesale and Retail. [July 1856.]

PLATED COACH TRIMMINGS.



WHITE & BRADLEY,
28 Cannon Street,
BRIDGEPORT, CONN.,
MANUFACTURERS OF
**COACH & SADDLERY
HARD WARE**

EVERY VARIETY OF PLATED Trimmings for Coach, Calash, and smaller Carriages, Fine Coach Lamps of various patterns, Bands, (new styles,) Handles, Curtain Rollers, Mouldings, Pole Crabs and Hooks, Buckles, &c. &c. Any of our Trimmings, Plated in Silver, Brass, or Princes' Metal, are warranted to give satisfaction
Bridgeport, Conn., July 1855.

TOMLINSON
Spring and Axle Company.

MANUFACTURERS OF
**COACH AND CARRIAGE
Tempered Springs.**
Mail Patent, Half Patent and Taper
CASE HARDENED AXLES.
CANNON St., BRIDGEPORT, Conn.

THE SUBSCRIBERS WOULD RESPECTFULLY CALL THE attention of Coach and Carriage Manufacturers to their
Springs and Axles,

As we are confident we can furnish them an article unsurpassed (as to quality of material and finish) in the United States. Our Springs are manufactured from

ENGLISH STEEL,
made from the best Smeed's Iron, and our Axles from Salisbury Iron.
Terms as favorable as any other manufacturer.
All orders filled with promptness.
RUSSELL TOMLINSON, Esq., Pres't.
Wm. G. LANEBURG, Sec'y.
Oct., 1855. S. B. FERGUSON, Treas'r.

NEWARK COACH-HUB MANUFACTORY.
The Largest Establishment of the kind in the United States,
Keeps constantly on hand a stock of from 20,000 to 40,000 sets of
MORTICED HUBS,
From 3½ to 20 inches in diameter,
For Heavy Wagons, Omnibusses, Coaches, Rockaway Buggies, &c. &c.
REAR OF WASHINGTON HALL,
Broad Street, Newark, N. J.
WM. MILES.
July 1855.—6m.

**SAINT LOUIS
Spoke, Felloe & Hub
FACTORY.**
Corner of Broadway & Ashley St.

WOODBURN & SCOTT,
Proprietors of Blanchard's Patent.

Manufacture with care, of the very best timber, the following Articles:

Spokes of white oak and hickory, of all sizes and patterns, from 4 cts. to 5½ cts.
Wagon and Buggy Singletrees, Neck Yokes and Spring Bars, from 12½ to 15 cts. each.
Pick, Sledge, and Hammer Handles, from \$1 to \$1.50 per doz.
Bent Heel Shafts at 60 cts. 3 pr.
Bent Carriage Poles, 75 cts. each.
Bent Felloes, 1½ in. and under, \$1.75 3 set; for each additional ¼ of an inch, 25 cts.
Buggy Bows, 75 cts. per set.
Wagon " 80 "
Morticed Hubs, 5 in. \$1.25.
" 5½ & 5¾ in. \$1.40
" 6 & 6½ " 1.50
" 7 & 7½ " 1.60
" 8 to 9½ " 2.00
" 10 to 11½ " 2.50
" 12 to 13 " 2.80
Unmorticed Hubs, \$1 to \$2.
Effort will be made to keep a supply of the above articles always on hand.
N. B.—The highest price paid for Oak and Hickory Spokes and Plank. None but the best quality of timber will be received.
Aug. 1855.

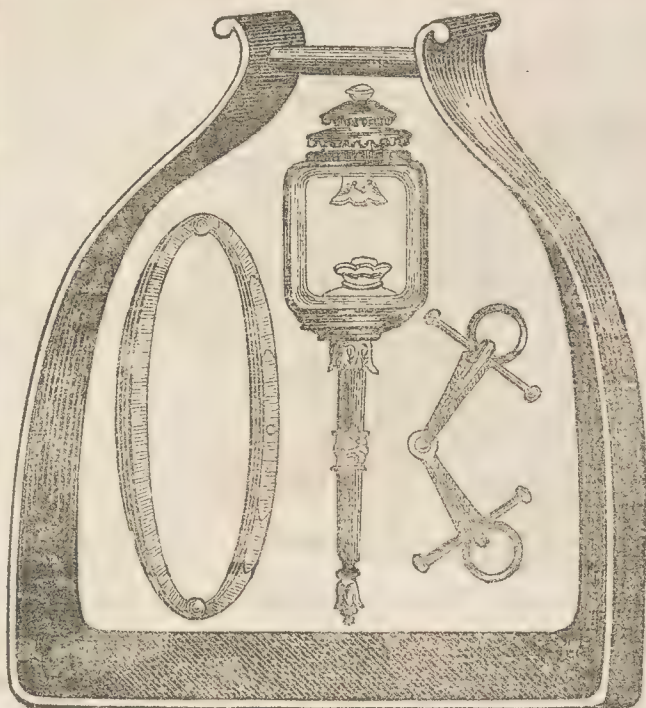
FRED. ERNST & CO.,
IMPORTERS AND MANUFACTURERS OF
**Paints, Colors, Brushes and
VARNISHES.**
Particular attention paid to
Lakes, and Artists' Articles in General,
No. 65 Fulton Street,
NEW YORK.
SECOND STORY,
Sept. 1855.

S. & S. S. CLARK,
IMPORTER OF
SADDLERY HARDWARE
MANUFACTURERS OF
HARNESSES, SKIRTING, BRIDLE AND SEATING.
180 Main Street, Cincinnati, O.
June 1855.

H. CALVERT & CO.,
Silver, Brass & Electro Platers,
And Manufacturers of
COACH & SADDLERY TRIMMINGS,
Improved Solid Head Silver and Japaned Lining and Band Nails,
SILVER AND LEAD MOULDING,
SPRING CURTAIN BARRELS,

Nos. 2 and 3 Japaned and Silver Cap'd Carriage Knobs, Spring Catches, Door Handles, inside do., Scroll Foot Board Handles, Calash Trimmings, Card and Name Plates, Lining Band and saddle Nails, with annealed points—Top Props and Nuts, Joints, Rivets, Hub Bands, Shaft Tips, Pole Hooks and Crabs, Self-adjusting Saddle Trees, Hames, &c. &c.
FRANKLIN, NEAR CHAPEL ST., NEW HAVEN, CONN.
July 1855.

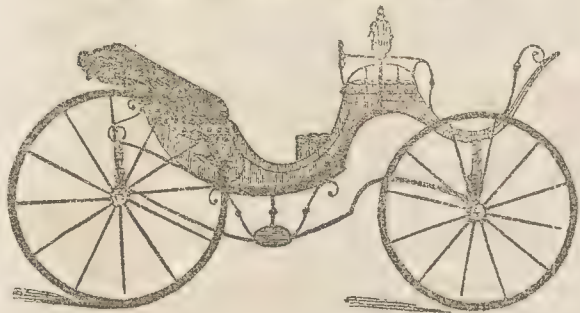
GOFF & PETERSON,



WE HAVE ONE OF THE LARGEST STOCKS OF TRIMMINGS on hand of any House in the country, consisting of every description of Goods used by Carriage or Harness Makers; such as Cloths, Damasks, Silks, Cordelines, Laces, Fringes, Patent and Enamelled Leathers and Cloths, Springs, Axles, Hubs, Felloes, Bows, Lamps, Castings, &c., at the lowest rates to be had any where.

June 1856

JOHN M. FORD,



PURCHASERS will find it to their advantage to examine my Stock, which is very extensive, and purchased or Cash; and consists in all the variety of New Styles of Goods in my line.
N. B.—All Orders shall have particular and prompt attention.
June 1855.

Wm. P. Wilstach & Co.,
IMPORTERS, MANUFACTURERS AND DEALERS IN
SADDLERY & COACH HARDWARE,
SADDLERY & CARRIAGE TRIMMINGS,
NO. 28½ NORTH THIRD ST., BETWEEN MARKET & ARCH,
PHILADELPHIA,

WHERE WILL BE FOUND THE LARGEST AND MOST COMPLETE assortment in this City of AMERICAN & FOREIGN GOODS. They will be offered to Cash buyers, and on six months time, below the usual market rates. They solicit old acquaintances, and all dealers in Saddlery, Carriage and Harness, Hardware and Trimmings, and also Saddle and Harness Makers, and especially Coach Manufacturers generally to call and examine their stock, which will be found to be by far the largest in the City of Philadelphia, embracing a full assortment of the various Hardware articles, Leather, Wood-work, Tools and Trimmings used by Saddlers, Harness and Carriage-Makers, especially adapted to the style and taste of the Southern, Western and Middle States.

Orders by mail from parties not in the habit of visiting the Eastern cities, (where Goods can be bought at from 10 to 30 per cent. less than in the Western towns) are respectfully solicited, and the Goods sent will be warranted to give entire satisfaction in price and quality.

Jan 1855.

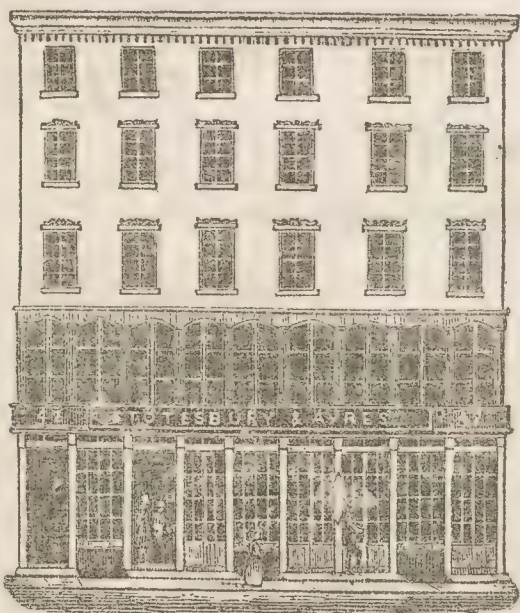
MANUFACTURED SOLELY BY
LAY & BROTHER,



PRICE LIST.	
1 to 25 lbs., in 1 lb. packages,.....	25 cts. per lb.—In bulk, 18 cts
25 to 50 “ “	20 “ “ “ “ 16 “
50 to 100 “ “	18 “ “ “ “ 14 “
100 and upwards,	16 “ “ “ “ 12 “

Orders by Mail promptly forwarded.

June-1856



STOTESBURY & AYRES,
IMPORTERS AND MANUFACTURERS OF
SADDLERY HARDWARE,
AND CARRIAGE FURNITURE,
No. 40 & 42 North Third St.,
ONE DOOR BELOW ST. CHARLES HOTEL,
PHILADELPHIA.

PATENT COLLAR AND DASH LEATHER, BLACK AND FANCY Enamelled do., Japanned and Enamelled Curtain Cloths, Cloths, Damasks, Fabrics, &c., Laces, Fringes, Ties, Springs, Axles, Malleable Iron, Fellos, Spokes, Bows, Hubs, Cotton and Worsted Girth Web, Stirrups, Bits and Roller Buckles, Brass, Silver and Japanned Harness Mountings, Joints, Bows, Calash Furniture, Screw Bolts, Hames, &c. [June-1856]

CHOPE'S PATENT COUPLING.

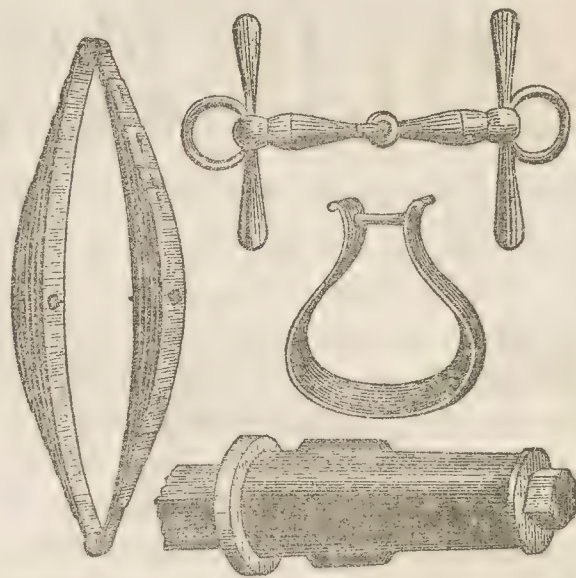
HAVING COME TO THE CONCLUSION TO DISPOSE OF MY Patent for the United States, in Territory or otherwise, to those wishing to add strength, utility, durability, neatness and cheapness in the manufacturing of vehicles, I would particularly call their attention to the opportunity that is herein set for them offered. Any person wishing to purchase, I will send them one to try. If it does not answer in every manner as set forth, the cost is all that will be required; otherwise full price, as set for them in March No. Magazine. We shall continue to receive orders until further notice is given through the Magazine. All orders addressed to A. & T. CHOPE, Detroit, Mich., will receive prompt attention.

June-1886 THOS CHOPE, Patentee.

HASTIE, CALHOUN & CO.,
No. 39 Hayne street,

Accessors to HARR, CALHOUN & CO., and HARRAL, HA
& C., Importers and Wholesale Dealers in
Saddlers' & Coach-Makers'
HARDWARE & TRIMMINGS.
Leather & Shoe Findings.
Also, Manufacturers and Wholesale Dealers in
SADDLES, BRIDLES, HARNESS, & C
—To our old customers—six months, or 5 per cent. on

H. & G. FRICKE,
No. 14 North Third Street, Opposite Church Alley,
PHILADELPHIA.



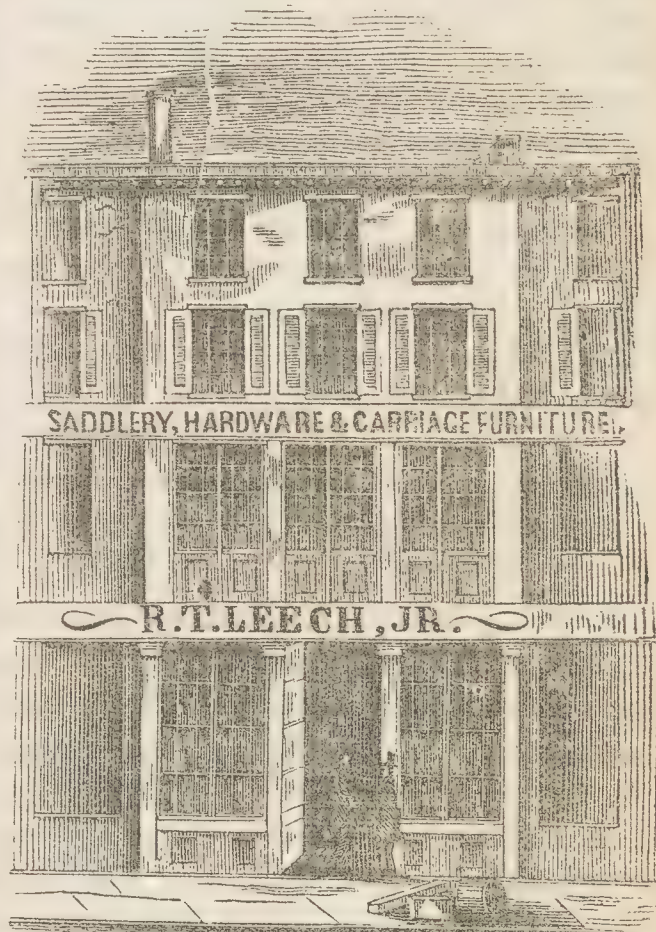
IMPORTERS AND MANUFACTURERS OF
SADDLERY & COACH HARDWARE

Has constantly on hand Patent Leather of all descriptions, Springs of all kinds, Axles of every description, Malleable Iron, Spokes and Hubs, Felloes and Shafts, Carriage Bolts, Couplings of Axles and Shafts, Enamelled Cloth of all descriptions, Dashies, Knobs and Joints, Curled Hair and Moss, Turned Wood Work, Webbing of all kinds, Saddlers' and Coach Makers' Tools, Oil Cloths of all descriptions, Fringes and La es.

Quality and Price as favorable to purchasers as can be bought in the United States.

Terms Cash or 6 months.

[June 1855.]



H. H. LEECH, JR.,

IMPORTER AND DEALER IN
FOREIGN AND DOMESTIC
SADDLERY HARDWARE
—AND—
CARRIAGE TRIMMINGS
No. 127, formerly 131 Wood st.,
Pittsburgh, Pa.

E. J. WHITTEMORE,
PHINEAS JONES,
O. N. WHITTEMORE.

WHITTEMORE & JONES,
Elizabethport, New Jersey,
MANUFACTURE COACH, CARRIAGE AND WAGON WHEELS
of every description for the trade. Orders respectfully solicited from Carriage Manufacturers, &c. Stock for making Wheels for sale.

Feb. 1856-1y

THE COACH-MAKERS' MAGAZINE.

SARVEN'S PATENT ANTI-RATTLING, ANTI-FRICTION SHAFT COUPLING.

That will last as long as a Carriage to which it is attached, without costing a dime for repairs.

BEING ON AN ENTIRELY NEW PRINCIPLE, discarding altogether the old Jack Bolts with their long ends projecting out, which certainly possess neither beauty, durability, or correspond with any other portion of a finely finished vehicle. I will not undertake to describe this Coupling, but simply say, that it is not complicated or expensive, and makes a perfect finish. I employ neither Indiarubber or Springs, and its operation is not affected like most of Spring Couplings by being clogged in winter by ice or frozen mud. If you will imagine a smoothly turned globe or ball, working in equally smooth chambers that can be oiled, excluding dirt and grit, and the chambers so arranged that their pressure upon the globe is regulated by a set screw, no wear coming upon the screw, but entirely upon the globe, you have as good an idea of the coupling as you probably can get, without seeing the coupling itself, which being of different sizes, is adapted to light or heavy work.

Any information in relation to this coupling, may be had by addressing the undersigned.

JAMES D. SARVEN,

Inventor and Patentee, Columbia, Tenn.

June 20th, 1856.

P. S.—It will be admitted that the globe will not break, and no wear coming upon any other part of the coupling, it is believed to be made on the best known mechanical principle, to prevent wear and friction; but the idea of oiling a Shaft coupling and excluding dirt and grit may not appear to possess much merit. Let me ask why we oil an axle, or try to exclude dirt or grit, and how long an axle would last if left exposed, and without oil, as is common in shaft couplings. In both cases, there being continual motion and rubbing of metal together when a carriage is in use, and as the same law of wear and friction is applicable in both cases, is it not plain that the same remedy must be applied in one case as in the other? Having had an experience of nearly twenty-five years in the coach business, both East and West, and having noticed somewhat the march of improvement during that time, I have no hesitation in offering this as an improvement to overcome the difficulties so long and so often experienced by the earriage making and carriage using community, and invite a careful, critical, and impartial examination before sentence is pronounced.

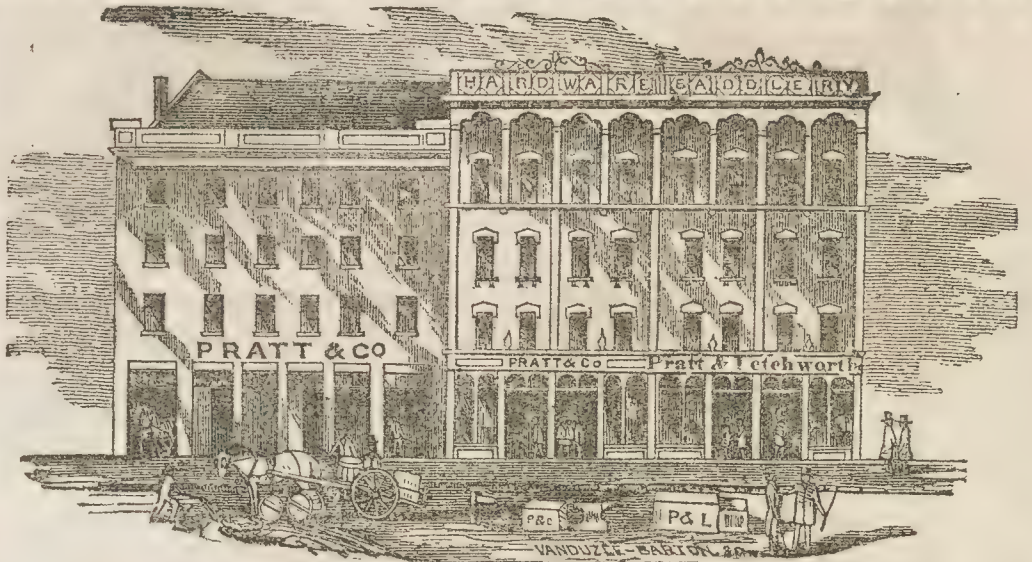
J. D. S.

SAMUEL F. PRATT,

PASCAL P. PRATT,

WM. P. LETCHWORTH.

PRATT & LETCHWORTH,



MANUFACTURERS, IMPORTERS & DEALERS IN EVERY DESCRIPTION OF
SADDLERY, COACH & TRUNK HARDWARE,

OFFICE AND SALE ROOMS, No. 34 Terrace Street,

Opposite the Western Hotel, and adjoining the Hardware Store of Messrs. Pratt & Co.

BUFFALO, N. Y.

[June 1856.]

Oldest and Largest Establishment of the kind in the U. S.



CHARLES PEARL,
BRASS & SILVER CARRIAGE BAND MANUFACTURER,
423 & 425 Main Street, Poughkeepsie, New York,

I AM CONSTANTLY GETTING UP NEW AND TASTY DESIGNS FOR CARRIAGE BANDS, WHICH FOR BEAUTY AND Chastity cannot be rivalled. Any new patterns made by sending me a description of them. Also manufacture the celebrated Princes' Metal Bands. Also manufacture and have constantly on hand a large and well seasoned stock of Bent Felloes, Shafts, Poles, and Turned Spokes of the different varieties of Wood, and Seat Rounds of every style.

TERMS—Six months for approved paper, or five per cent. off for Cash.

N. B. None but dealers supplied.

[Aug-1856]

RAHWAY HUB MANUFACTORY.

The Largest and Best of the kind in the United States.

EVERY VARIETY OF SEASONED, MORTICED, & UNMORTICED, KEPT CONSTANTLY ON HAND, SUITABLE FOR TRUCKS, Heavy Wagons, Omnibusses, Coaches, Rockaways, Buggies, Sulkies, &c. The subscriber spares no pains in procuring the best of timber, and in getting up his work in the most approved style.

Aug. 1856.

JOHN URMSTON.
Union St., Rahway, N. J.

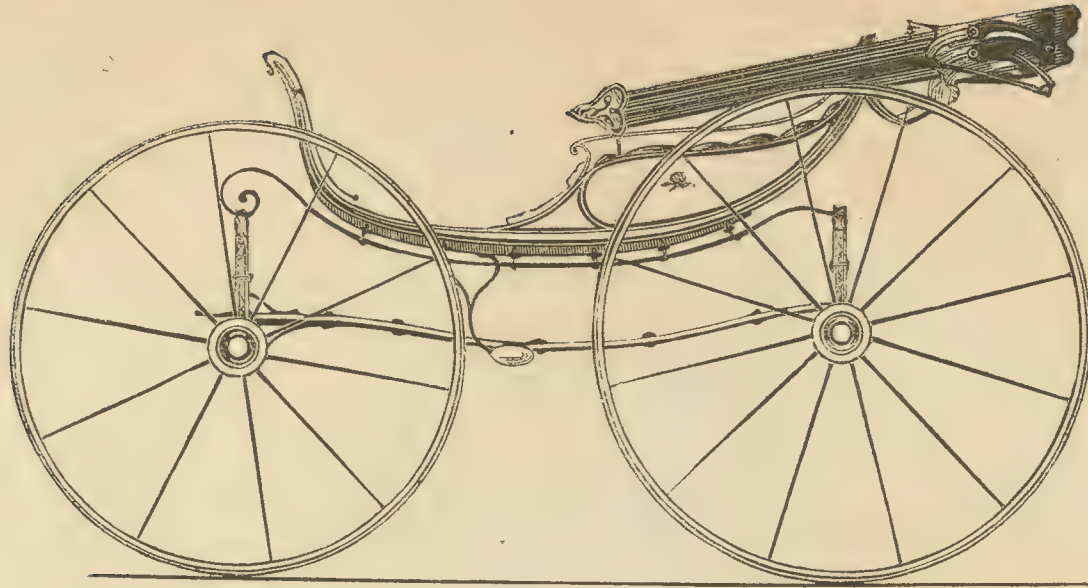


Fig. 49—A Light Calash Phaeton:

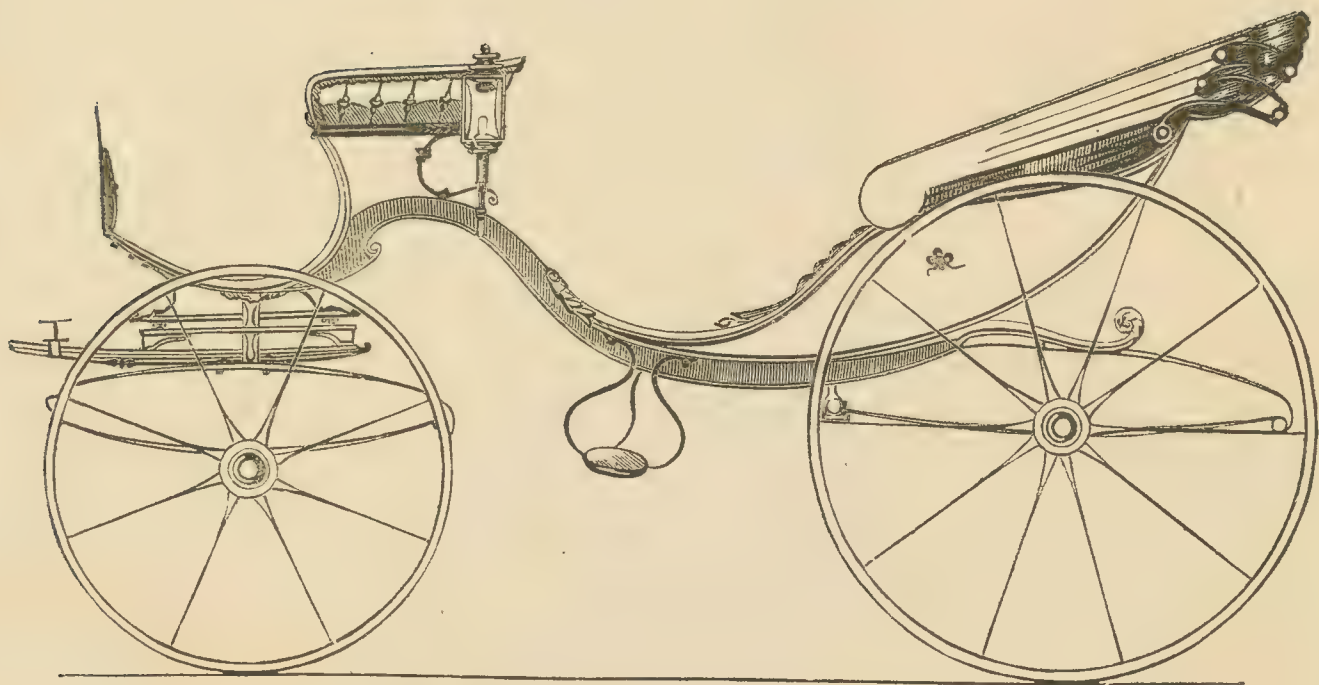


Fig. 50...Crane Neck City Calash.

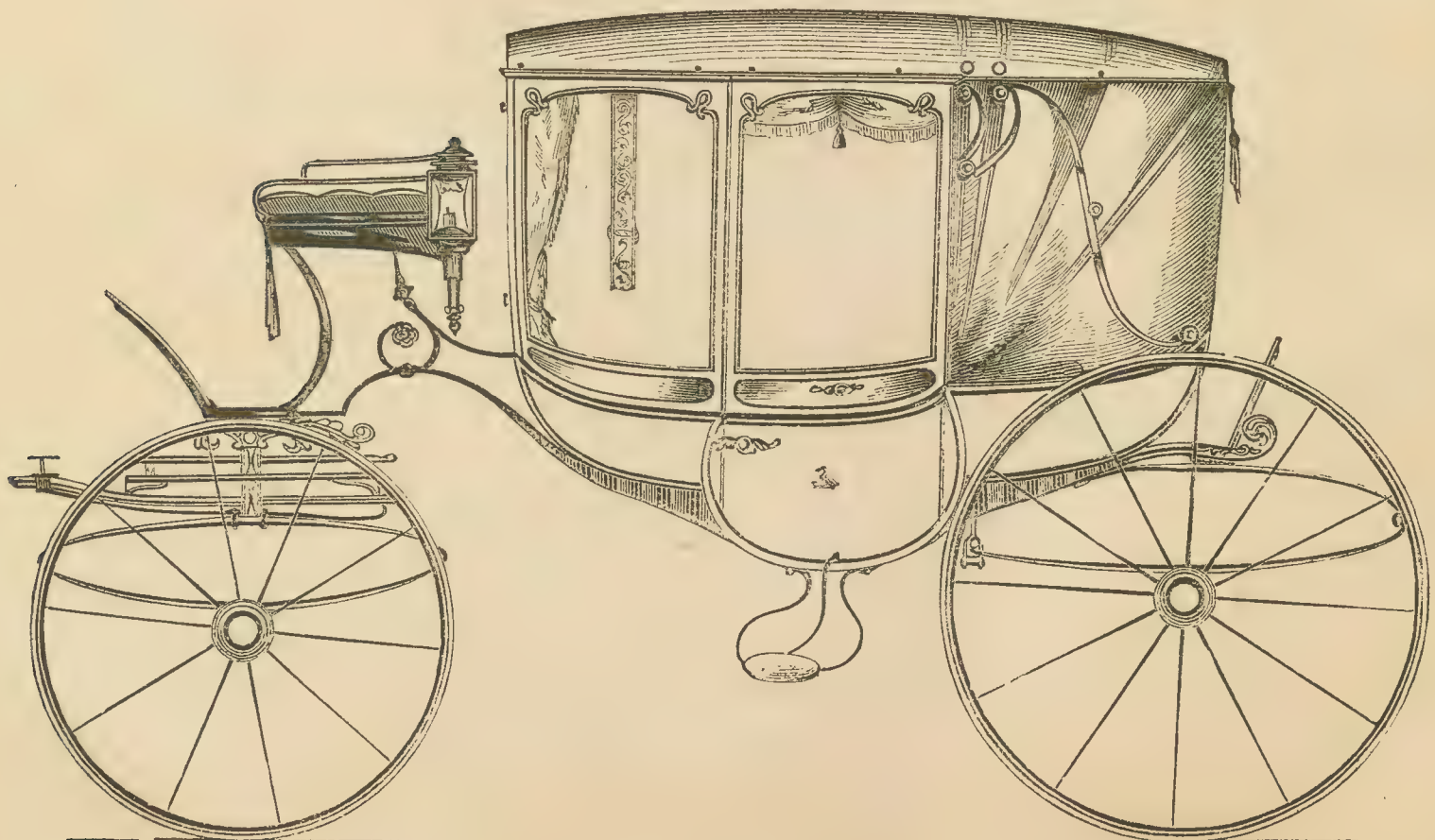


Fig. 51.—Full Caleche.

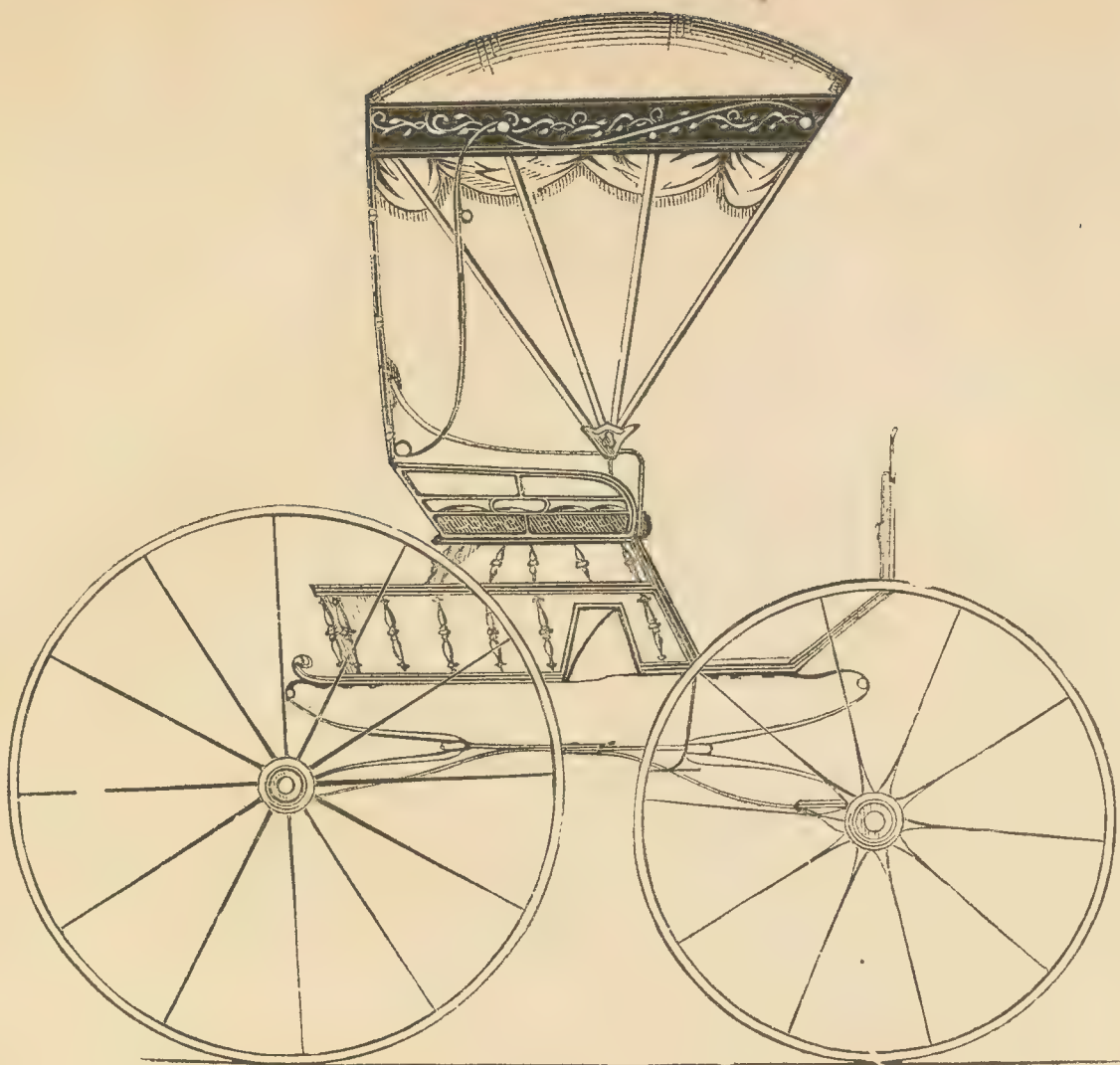


Fig. 52—Cut-under Buggy.

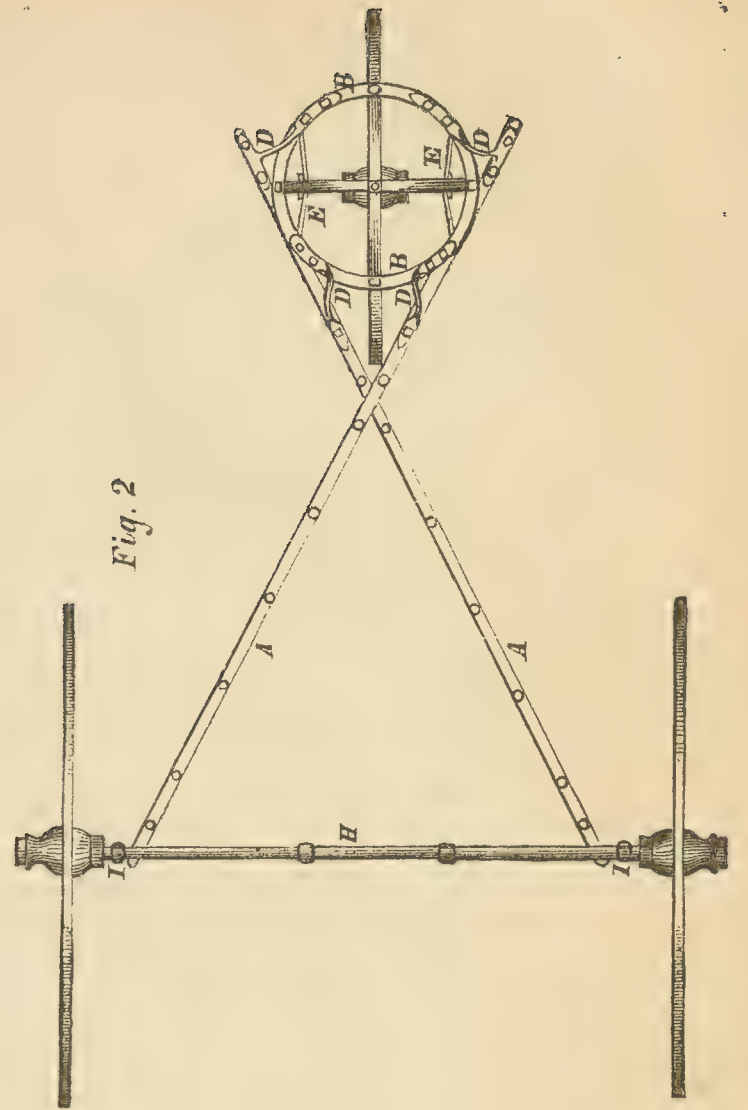


Fig. 2

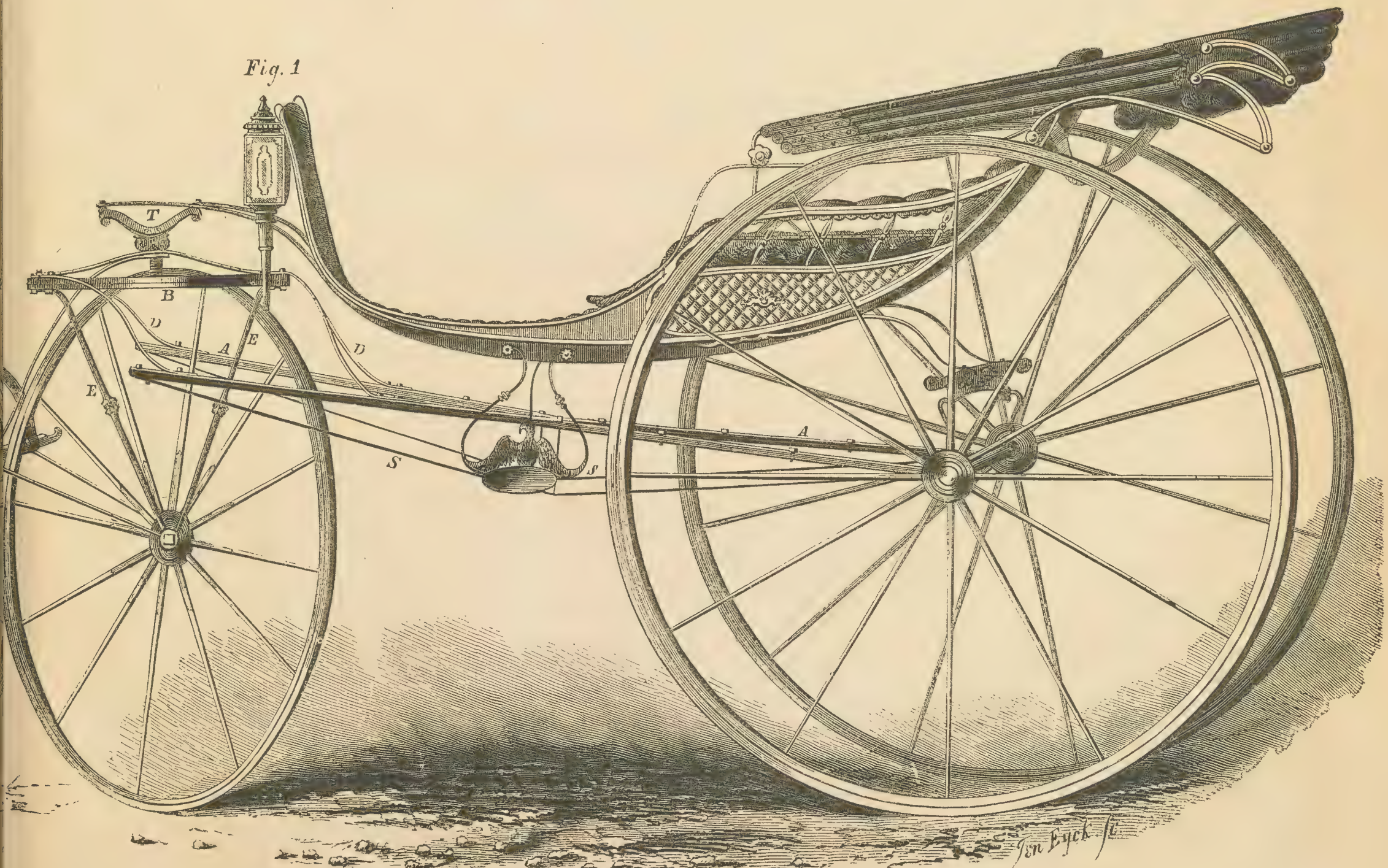


Fig. 1

Saladee's Three Wheeled Equirota! Phaeton.



Volume 2.--Number 10.]

October, 1856.

[E. W. Saladee, Editor and Proprietor.

TERMS:

Single subscription one year	- - - - -	\$3 00
Clubs of three	" - - - - -	8 00
" " six	" - - - - -	15 00
" " ten	" - - - - -	20 00

Payable invariable in advance.
All Clubs, however, must be sent to one address.
Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented stamped on the cover in gilt letters.

All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Persons visiting New York, who are not subscribers, can see the Magazine and subscribe by calling at the Office of the Coach-Makers' Magazine, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for New York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

Back Numbers, from January 1st, furnished to all new Subscribers.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.
All advertisements for a shorter time than twelve months are charged 50 cts per line for each insertion; Payable in advance.

Fashions for October.

For Saladee's Magazine.

FIG. 49.—A LIGHT CALASH PHÆTON.

MR. SALADEE:—I herewith send you a drawing of a light top Phæton, which we have put up for our State Fair, and by all who see it it is pronounced one of the most dashy, light and airy looking vehicles imaginable.

You will perceive we have profited by an illustration given in the Magazine not long since, in which was introduced a new way of putting on a loop. Unless you have seen a Phæton body thus suspended, you can form no idea as to how much it adds in appearance to the lightness of the carriage. The rub iron is forged solid on the loop. The whole Phæton is painted black and very delicately lined with white, red, and some green, and trimmed with a dark brown satin brocatell.

A. A. S.

For Saladee's Magazine.

FIG. 50.—CRANE NECK CITY CALASH.

MR. EDITOR:—You have already illustrated quite a number of carriages of this stripe but as yet I have seen nothing that I think is so well adapted to please every one who wants something of this kind as the design I have made expressly for your Magazine, and herewith hand it to you for inspection. After the drawing was completed my employers (Messrs. Smith & Porter) took such a fancy to it that they ordered one of the bodies made, and I am at this time at work upon it. I believe it to be the most simple and yet fanciful design I have ever seen. It is solid side work with but side and rocker, the latter extending back and forming the pump handle. The back half of the body is a true representation of the original one seat Phæton, and the front with driver seat after the modern style of crane-neck fronts.

T. R.

For Saladee's Magazine.

FIG. 51.—FULL CALECHE.

MR. EDITOR:—Enclosed you will find one of our recent patterns of caleche, which we (in our factory) think something fine. You will perceive that the finish about the door is something new, and gives quite a novel as well as handsome appearance. I am aware that many of our carriage consumers are somewhat prejudiced against the caleche on account of its liability to get out of order, and also that it requires a practical mechanic to either attach or detach the top. Notwithstanding all this, if they really are objections, many of our old customers are strongly attached to them.

J. T. A.

For Saladee's Magazine.

FIG 52—CUT-UNDER BUGGY.

MR. SALADEE:—If you consider the accompanying drawing worthy of a place in your "Fashion Plates," you are at liberty to use it in that way. It is a very desirable style of "cut-under" carriage, and one much sought after in the city. The body is solid side, mortised off as represented, and painted and trimmed in the most gaudy style possible, which style of finish seems particularly appropriate for wagons of this class. We have made quite a number of this pattern, and in some few of them we have used Sprout's Springs, and so far as we can hear from them they are giving good satisfaction.

S. & P.

IMPROVED THREE-WHEELED PHÆTON.

In the July No. of this Magazine, we gave an illustration of our Three Wheeled Phæton, together with a hasty sketch of our experiments therewith; and in connection with *that* illustration, we promised to report what progress we might make in the future. Since that time we have completed another phæton on three wheels, in which we introduced various important improvements, which consist in the application of the cross perches, as seen in Fig. 2, and in greatly simplifying its general construction; and we are now fully satisfied, that with other improvements we are now making, and will hereafter illustrate, this carriage must become a universal favorite among that portion of individuals who use this denomination of pleasure vehicle, for in view of strength, comfort and convenience, we have never yet seen anything to equal it. Quite a number of gentlemen have come from New York, Connecticut, Pennsylvania, Massachusetts, and from as far West as Missouri, expressly to try it, and in every instance they expressed themselves highly delighted in its style and mode of operation, and at the present time some thirty orders are in our hands which are to be filled with the carriages completed. The price at which they can be furnished, varies from \$140 to \$250, owing to the style and finish they are to have.

The engravings illustrated in the Drawing Department of this No., and the following explanations of the same, we copy from the *Scientific American*, New York:

"There are two very prominent objections to the use of our modern four wheeled buggies, which every individual who uses a carriage to any considerable extent, has doubtless observed. We mean the annoyance of getting in and out of the vehicle on account of the interference of the front wheels; they are perpetually in the way, and though the trouble is taken to turn the horse to the opposite side on which the passenger is getting in or out the wheel can seldom be turned sufficiently to prevent the clothing, especially of ladies, from coming in contact with the wheel.

The other imperfection we refer to, is that of turning the vehicle. We doubt not that the majority of accidents which attend the use of horses and carriages, occur in the act of turning, or when the horse takes to cutting up some unpleasant caper. Persons not skilled in driving, frequently attempt to turn the vehicle in too short a space. The result is, that the front wheel strikes the body, and raises one side to such an extent as to upset the carriage. This is especially the case when the horse becomes somewhat ungovernable and takes to backing.

It is these imperfections which Mr. Saladee proposes to overcome in his improved "Three Wheeled Phæton," for which letters patent were granted to him on the 15th day of July last. The accompanying engravings illustrate the invention. The third wheel is placed directly in front of the body. Thus it matters not what position the vehicle is in when the horse stops, there is no hindrance whatever in getting in and out, and as the motion of this third wheel is not limited, the vehicle can be turned as short round as a vehicle on two wheels, and without the least cramping or straining of the body, or any part therewith connected.

Fig. 2 is a top view of the carriage with body detached, which will serve to illustrate the very simple manner in which the third wheel is permanently connected to the hind axle and wheels. A A are wood perches, one inch and a half square with a light iron plate top and bottom. The back ends are secured to the axle, H, by means of clips, I, and crossing each other, the front ends are secured to the horizontal "fourth wheel," B, (commonly known as the "fifth wheel,") by iron braces, D, which are firmly bolted to the perches. The horizontal fourth wheel is supported over the top of the third wheel by braces, E, as seen in figure 2. The braces, S, on the bottom of the perches are applied with a view of stiffening them, and preventing lateral motion to the third wheel. When in the act of turning, the third wheel works under the perches, or rather, between the front fork of the same.

By this arrangement the front wheel is made to run perfectly steady, and as there are but three wheels, the friction of course is

less, and consequently less resistance to draft. The vehicle is moreover rendered much lighter, and presents a very light and airy appearance.

The body is suspended in front upon a "cradle spring," T, fig. 1, and in the rear on a half elliptic, supported by iron jacks near the centre of the axle.

At first sight of this carriage, there would seem to be an objection to the position of the front wheel, for the reason that, as it is directly in the centre of the body, in front, it must of course travel in the middle of the road, in which case it would come in contact with more roughness than the front wheels of four wheeled vehicles. On country roads there is almost invariably a rough elevation in the centers, and as the wheel is in the center of the body, we would naturally conclude it must run on this center elevation on the road. But a moment's reflection will suffice to prove the contrary. Now, as the wheel works directly in the rear of the horse, it must necessarily pass over the smoothest part of the road. For the reason the horse cannot be driven along on this central ridge or elevation, but he will travel by the side of it, neither can he be driven over a large stone or stump, but he will go round it, and as the wheel follows directly in his track, it will likewise travel by the side of the ridge and round the stone or stump, in place of over it, as is commonly the case where there are two wheels in front.

The patentee has had one of these carriages (from which our engraving is taken) in actual and every day use for the past two months, and states from the perfect manner in which it operates on all kinds of roads, together with the advantages it possesses over the ordinary "two passenger vehicle," he believes that it will, ere long, come into common use. This style of carriage appears to be well adapted for the practicing physician, and for business wagons, as well as pleasure carriages. The inventor is the editor and proprietor of the *Coach-Makers' Magazine*, and is a practical carriage builder."

COMMUNICATIONS.

For the Coach-Makers' Magazine.

THE IDEAL, INCEPTIVE, AND PROGRESSIVE HISTORY OF COACH-MAKING.

PART SIXTH.—THE CHARIOT IN THE RACE, &c.

He starts; the coursers, whom the lashing whip
Excite, outstrip the winds, and whirl the car
High through the airy void.

[EURIPIDE'S PHÆTON,*

The honor and respect which was certain to follow the skilful act of driving the chariot appears to have enlisted some of the best talents of the men of antiquity in that employment. Plato mentions one Anniceris, a native of Africa, who had acquired great dexterity in guiding the chariot. This African was desirous of giving the celebrated philosopher a proof of his skill, and in presence of a great many people drove several times around the Academy with so steady a rein, as to have but one print of his chariot wheels. This national feeling had been nourished and promoted by the constant custom, as we have seen, of princes, heroes, and men of exalted character having fought from chariots in battle.

We gather from ancient history the fact that all who presented themselves at the chariot races in the Olympian games for winning the prizes, were persons of consideration, either for their riches, birth, employments, or distinguished actions. We are told that kings, in person, eagerly aspired to this glory, in the conviction that the title of victor in these games, was scarcely inferior to that of a conqueror in war, and that the Olympic wreath of wild-olive, pine and parsley would give additional dignity to the splendors of a throne. Pindar in one of his odes teaches us that Gelon and Hiero, kings of Syracuse held this opinion, and of which we find numerous other examples in classical authors. Many will remember the answer given by Alexander the Great to a question asked of him by a friend; whether he intended to dispute for the prize in the Olympic races, and his ready answer thereto, which was "yes, if kings are to be my antagonists," and this doubtless was a true exhibition of the state of feeling among most rulers at that time.

As in the battle so in the chariot race, it was absolutely necessary that the charioteer should be of the first rank in society, as this position was considered one of very great responsibility, and as a further qualification, it was particularly required that the charioteer or driver should become as expert as a long and frequent practice could make him, since success either in war or pleasure would depend in a great measure upon the address, or skill of the conductor. Evidently then it was the pride as well as the interest of this class of persons to strive by every effort in their power to excel each other in guiding their horses skilfully; and to struggle to maintain a proper respect for their own individual character.

Plutarch in his Life of Alcibiades, tells us, no one ever carried his ambition so far as this king did for making a great figure in these games, in which he distinguished himself in the greatest manner by the great number of horses and carriages which he kept only for these races. No king or private person either ever sent, as he did, seven chariots at once to the Olympic

games, where he carried the first, second and third prizes, an honor no one ever gained before him. Indeed this jockey king seems to have made such a splendid preparation for these games that it was a wonder to some how he ever found funds sufficient to defray the enormous expenses attending his proceedings.

The usual number of chariots in each race were four, drawn by two or four horses abreast; sometimes mules supplying their places. The charioteers were divided into four companies or factions, each distinguished by a particular color, representing the season of the year. These colors were green for the spring, red for the summer, azure for the autumn, and white for the winter. Originally but two chariots started in the race, but the number was subsequently increased to six, but generally the number was restricted to four. It was not particularly required that the owner of a chariot should drive it in person in order to secure the palm. To be a spectator, or to send their chariots hither was sufficient, yet it was necessary to have the name of the person registered previously to running; for whom the lists were taken. These lists were circulated, with the names and color of the horses; the names also of the charioteers were given and bets extensively made, and sometimes the disputes and contests which arose were very violent. The charioteer having mounted his chariot and thrown the lines over his head, so that he would be able to stand within them in order to pull with all his weight when he wished to stop his horses—although it was a dangerous practice, and by it the death of Hypolitus was caused,—and to avoid any danger to the charioteer he was provided with a hooked knife at his waist, for the purpose of cutting the reins on an emergency. Upon the signal being given they all started off from the stand called a *carceres*. The positions were regulated by lot and was not an indifferent matter to the different drivers, for in the rounds—twelve in number—as they had to turn a boundary the chariot on the left would be nearer than those on the right and consequently had less compass to run. He who came in first on the twelfth round was declared victor. A great advantage was gained in turning the boundary, and great skill was required in order to avoid the danger, for if the charioteer did not drive close he lost ground, while if he drove too near he was in danger of dashing his chariot to pieces—for the motion of the wheels was very rapid—and being himself killed. Homer (*Iliad*, C. xxiii, v. 344) puts into the mouth of Nestor the following instructions to his son Antilochus who was about joining in the race:

"O Antilochus, assuredly indeed both Jove and Neptune have loved thee, although being young, and have taught thee all kinds of equestrian exercise; wherefore there is no great need to instruct thee; for thou knowest how to turn the goals with safety; but thy horses are very slow to run wherefore I think that disasters may happen. Their horses, indeed, are more fleet, but they themselves know not how to manœuvre better than thou thyself. But come, now, beloved one, contrive every manner of contrivance in thy mind, lest the prizes by any manner of chance escape thee. By skill is the wood cutter much better than by strength; and, again, by skill the pilot directs upon the dark sea the swift ship, tossed about by the winds; and by skill charioteer excels charioteer. One man who is confident in his steeds and chariot turns imprudently hither and thither over much [ground], and his steeds wander through the course, nor does he rein them in. But he, on the contrary, who is acquainted with stratagem [though] driving superior steeds, always looking at the goal, turns it close, nor does it escape him in what manner he may first turn [the course] with his leathern reins; but he holds on steadily and watches the one who is before him. But I will show thee the goal, easily distinguished, nor shall it escape thy notice. A piece of dry wood, as much as a cubit, stands over the ground, either of oak or of larch, which is not rotted by rain; and two white stones on either side, in the narrow part of the way; but the race-course around is level: either it is the monument long since dead, or perhaps it has been a goal in the time of former men and now swift-footed noble Achilles has appointed it the goal. Approaching this very closely, drive thy chariot and horses near; but incline thyself gently to the left of them (the steeds), in the well-joined chariot-seat; and, cheering on the right-hand horse, apply the whip and give him the rein with thy hands. Let thy left-hand horse, however, be moved close to the goal, so that the nave of the well-made-wheel may appear to touch the top [of the post]; but avoid to touch upon the stone, lest thou both wound thy horses and break thy chariot in pieces, and be a joy to the others, and a disgrace to thyself. But my beloved son mind to be on thy guard, for if at the goal thou couldst pass by in the course, there will not be one who could overtake you in pursuit, nor pass thee by; not if behind he drives noble Arion, the swift steed of Adrastus, which was from a god in race, or those of Laomedon, which, excellent, have here been reared."

In the Third Georgic of the poet Virgil we find the following passage:

Nonne vides? quum præcipiti certamine campum
Corripere ruuntque effusi carcere currus,
Quum spes arractæ juvenum, exultantique haurit
Corda pavor pulsans: illi verbera toro,
Et prona dant lora; volat vi fervidus axis etc.

Thus literally rendered; do you not see, when in swift strife chariots have seized (hastened across) the plain, and rush forth from the goal; when the hopes of the youth are exalted, and palpitating fear exhausts their exulting hearts; they urge on with the twisted lash, and bending forward give the reins, the axle glowing with violence flies, and now low, and now raised high, they seem to be borne through the vacant air, and to ascend to the skies.

The poets and historians of antiquity are very fond of introducing the chariot into their works, and this circumstance points out the fact very clearly that it was the most popular vehicle yet constructed; it was found in every public procession; in every important battle, and indispensably required in the popular amusements of the people of which as we have seen the Olympic games furnish us with a prominent example. This subject might easily be extended still further, by numerous illustrations from classical history, but as we have already redeemed our promise made in our introductory article, and

*The curious reader who may be desirous to learn who Phaeton was, will find his enquiries fully gratified on turning to the second book of Ovid's *Metamorphoses*. If he cannot read the original he will find Riley's translation in Bohn's Library to answer all his purposes. Was our vehicle named after him?

extended these chapters beyond our original design, we will now take leave of the reader, lest we incur the risk of wearying him with a hacknied subject.
E. M. S.

For Saladee's Magazine.

FRICITION.

MR. SALADEE:—According to promise made in my first contribution, published in the August No. of this Magazine, I now proceed to offer a few remarks upon the subject of "Friction." The term *Friction*, in its usual acceptation, being pretty generally understood, I will proceed, (with the aid of Olmsted and other experienced writers) to inquire into its nature, the laws of its action, and its effect upon machines.

In investigating the mathematical principles of mechanics, we first proceed on the supposition that the forces in question act without any impediments; that the surfaces which move in contact are perfectly polished and suffer no friction; that axes and pivots are mathematical lines and points; that ropes are perfectly flexible; and, in short, that the power is transmitted through the machine to the working point without sustaining the least loss or diminution. Great simplicity is attained by first bringing the subject to this ideal standard of perfection, and afterward making suitable allowances for all those causes which operate in any given case to prevent the perfect action of a machine.

Surfaces meet with a certain degree of resistance in moving on each other, in consequence of the *mutual cohesion of the parts*, a principle which has the greater influence in any given case in proportion as the surfaces are smooth. But a much greater resistance arises from the asperities which the surfaces of all bodies have, though in very different degrees, according to their different degrees of smoothness. An extreme case is that of two brushes moving on each other, the hairs of which become interlaced, (especially when the brushes are pressed together,) and oppose a great resistance. Even bodies apparently very smooth, as polished metals, exhibit under the microscope numerous inequalities. Under the solar microscope, the finest needle exhibits a surface as rough as the coarsest iron tools do when viewed by the naked eye. To these inequalities of surface, is principally ascribed the friction of bodies, when closely in contact; the prominent parts interlock with one another, or meet, and must be broken down before the surfaces can move. Hence, friction is diminished by processes which level these inequalities, either by polishing the surface, or by coating it with some lubricating substance which fills up the cavities.

Forces of this nature, which act by the resistance they occasion to motion, are called *passive forces*. They produce very different effects in machines when in a state of equilibrium, and in a state of motion. In the one case they assist the power; in the other case they oppose it. Thus, a weight placed on an inclined plane, will require a less power to *support* it in consequence of the friction of the plane; and a weight suspended by a rope passing over a pulley will require a less weight to *balance* it, on account of the friction of the axle. But the same passive forces operate in just the contrary way when a machine is to be put in motion; for then a power must be applied, which is sufficient not only to overcome the weight itself, but also the amount of all the resistances. For example, in order to draw a load up an inclined plane, we have to overcome not only the force of gravity by which the load endeavors to descend down the plane, but also the amount of all other resistances which impede its motion, although the load would be kept from *descending*, that is, in a state of equilibrium, by a less force in consequence of these resistances. The principle is most strikingly observed in the wedge, where the difficulty of making the wedge *advance*, is greatly increased by friction, but the same cause operates to prevent it from *recoiling*.

Two philosophers of great eminence have severally performed an extensive series of experiments on friction, namely, M. Coulomb, member of the Academy of Sciences at Paris, and Professor Vince, of the University of Cambridge in England; and upon their investigations is founded a great part of all that is known with precision respecting the laws of friction.

The forms under which this sort of resistance presents itself, are chiefly of two kinds, namely, that of bodies *sliding*, and of bodies *rolling* on each other. To the former of these let us first attend. Experiments on the friction of sliding bodies may be made, either by placing them on a table, and observing the weights which they respectfully require to drag them along the table, or

by placing them on an inclined plane, and observing at what angle the plane must be elevated in order that the body may *begin* to slide. In the former case, the table is prepared by attaching a vertical pulley to one edge over which a string is passed, one end being connected to the body in question, and the other end to a pan, like that of a balance, for containing weights. From this simple arrangement, a great variety of particulars may be ascertained respecting the friction of sliding surfaces. A body shaped like a brick, with a broader and a narrower side, may be tried on each of its sides separately, and thus it may be seen whether, in a given weight, the *extent of surface of contact* makes any difference; the body may be loaded with different weights, and hence may be learned the *influence of pressure* upon friction; the body may be tried as soon as it is laid on the table, and after remaining on it for a longer or shorter time, in order to learn whether this circumstance alters the friction; different kinds of bodies may be tried, and the *influence of different materials* ascertained; and finally, by dragging the body off the table with different degrees of velocity, the *relation of friction to velocity* may be investigated.

From experiments like the foregoing, endlessly varied, the following conclusions were established:

(1.) In a given body, *extent of surface* makes no difference in regard to friction; a brick laid on its edge meets with the same resistance from this cause, as when laid on its side.

(2.) Friction is proportioned to the *pressure*. If the pressure of the brick is doubled or trebled by laying weights upon it, the amount of friction will be increased in the same ratio.

(3.) Friction is increased by bodies *remaining for some time in contact with each other*. In some cases it does not reach its maximum under four or five days. This principle therefore affects slow motions much more than such as are rapid. In the mutual contact of metals, the friction attains its maximum almost instantaneously. But when metal rubs against wood, or one piece of wood against another, the friction is always increased by resting. Two pieces of wood acquire the utmost friction in an hour or two; while iron running on oak will have its friction augmenting for five or six days. The application of a coat of tallow seems to protract the limit of friction. This limit is attained by the greased surfaces of iron and copper in four minutes; while pieces of wood treated in the same way, will have their friction gradually augmented during nine or ten days.

(4.) The friction is less between surfaces of *different* kinds of matter, than between those of the *same* kind. Copper slides on copper, or brass on brass, with greater difficulty than copper on brass; and it is a general rule never to let two substances of the same hardness move upon each other. To this rule cast steel is said to form the only exception; in other cases, pivots revolve with less resistance on either harder or softer substances, than upon those of the same material with themselves. When between the surfaces of wood newly planed, the friction would be equal to one half the pressure, and when between two metallic surfaces it would be equal to one fourth, between the wood and metal it would amount to only one fifth the pressure.

(5.) Friction is much greater at the first moving of a load, than after it is brought freely into motion. In many instances it was reduced, when a body has attained its final velocity, to less than one half of what it was at first. With regard to different degrees of velocity over a given space, it is a *general* principle, that *the friction is the same for all velocities*; that a carriage for example, in traveling from one place to another, would encounter the same resistance from friction, whether it performed the journey in one hour or in ten. The amount of friction, however, is augmented in very slow motions, and greatly diminished in those that are very swift. In this instance, the increase in the one case and the diminution in the other, appears to have some relation to the principle, that the friction of bodies is increased by their remaining in contact. From some observations of Professor Playfair, made at the slide of Alpnach, where large fir trees are carried with great velocity down an inclined plane eight miles in length, it would appear that, in the case of very great velocities, friction is not, according to the common doctrine, either proportioned to the pressure, or independent of the velocity; but that the ratio to the pressure is greatly diminished, and the actual resistance is far less than at common velocities. Thus, none but large trees could descend the plane at all; and when a tree broke into two pieces, the larger part would

proceed while the smaller would stop; and the trees acquired in their descent a rapidity of motion, incompatible with the supposition that "friction acts as a uniformly retarding force," which has been considered as an established principle.

The foregoing considerations are in favor of rapid traveling, whether on common roads or on railways, since the amount of resistance is so much less than in slow movements; and accordingly it is said that the great speed given to stage coaches in England, amounting, in some instances, to 10 or 12 miles per hour, has not been attended with the degree of exhaustion to the teams that would have been anticipated.

W. W.

For Saladee's Magazine.

THE WHEEL.

The Wheel, being as it is, the foundation of the carriage, cannot receive too much attention, nor too close an application to true mechanical principles by the individual who constructs them. The wheel is not only to fill the mere capacity of forming a foundation on which the structure is to rest, but it must serve the double purpose of "locomotion;" and moreover it must sustain, not only the weight thrown upon it laterally and perpendicularly, but it must likewise sustain a species of concussion which taxes the best mechanical theories to overcome, that has ever been employed in its construction. Hence there is no part of the carriage which demands more attention and careful supervision from the hands of the manufacturer than the wheel.

It is my intention at this time to consider, for a brief space, what the wheel *was*, and *contrast* it with what it *now* is. Many who are still living, and will doubtless read what I am now writing, can recollect what kind of wheel was made fifty years ago. Those fathers will also remember that it was the *chief* ambition of the proprietors in those days to make a *good* wheel; and in order that they might succeed in this worthy intention, it was no marvelous affair to behold the proprietor and a number of his hands shouldering the axe, the cross-cut saw, the wedge, the mallet and the splitting-knife, and cheerfully marching for some distant forest, from which they would cull and prepare the *best* materials for the wheel which nature afforded. The next step then was to convey the timber to some dry and airy place, where it would be neatly piled up and left to season by the slow but healthy process of nature. This process, it was supposed, in the time of which I write, required from eighteen months to two years, and a sufficient stock was always supplied that length of time in advance. This was the manner in which our fathers secured their materials for the wheel. But their ambition for the "good and the true" was not languid here. If there is any *one* thing on which the workman of 1806 prided himself more than another, it was the construction of the wheel. It was thought no trouble then to adhere to the best known principles in that branch of the carriage. It was not looked upon as labor consumed and thrown away to make *every* mortise in the hub to correspond *accurately* with the premeditated dish of the wheel. It was not looked upon as time and pains uselessly consumed to drive *every* spoke into the hub with such *exactness* as not to vary a sixteenth from the dish intended, and great care was also taken in the application of the rim and tire, so that the wheel should be perfectly true, and that one was not dished more than another.

With such precaution as that exercised by our fathers fifty years ago, is it any thing strange or mysterious that the wheels they made would last ten, twenty, and some thirty years?—and indeed some remaining to the present day? Three years ago I saw a carriage in North Carolina that was made by one of the fathers in Philadelphia in 1798, which was still in running order, and strange as it may seem to some of the fast coach-makers of the present day, that carriage had its *original* wheels; and from the appearance of the *tire*, which was round, thin and smooth, I doubt whether the wheels had undergone even as much repairing as that of "cutting and shutting the tire." Here, then, is an illustration of a *good wheel*; of a wheel that was made not merely to *sell*, but to *wear*, and do good service. The fathers of "98" seem to have possessed a *full* knowledge of the leading *principles* in the law of mechanics, and in the construction of their work they applied *that* knowledge to a good purpose. But how stands the matter to-day? How many men who profess to be "wheel-rights," do you suppose can make a *good* wheel?—or how many do you imagine understand the *true mechanical construction* of the same? If I was compelled to

answer this question from the useless pile of trash I see every where around me in the shape of wheels, then would I reply in the language of the "Book of Books"—"Behold, there is not a just man that doeth good and sinneth not; no not *one*." That this answer would be justly applied to the modern wheel-right is abundantly evident from the unsatisfactory results of almost every sett of wheels that are of late brought into use. Why? you take a carriage from some respectable factory which has a reputation of making the best work in the country, and in less than three months (and in many instances in less than so many days) you will find that the wheels want the tire *re-sett*. You drive the carriage before the door of the factory and inquire why these things are, and you are told—"O, well, this weather is so extremely *dry*, that we don't care how *well* a wheel may be put up, it *can not* be made so as not to shrink up and leave the tire a little loose." Or perhaps they will tell you that the wheel is "rim-bound" by reason of some unknown cause, and if the spokes are loose in the hub, it can easily be remedied by taking a small particle from the rim and *re-setting* the tire; and a number of other excuses equally absurd.

I am not a carriage-maker, but being a very extensive carriage consumer, (and few but the "pill men" are such,) and from my own experience in the use of them, it sounds like *nonsense* of the most degrading character to hear any coach-maker asserting that a wheel can *not* be made to remain permanent in any climate or under any circumstance where it is not over burdened. For have we not as good materials now, as had our fathers fifty years ago? If so, why all this trouble with the modern wheels? Trouble, did I say? Yea, more; expense, loss of time, and an ocean of inconvenience is thrown upon the consumer, in being compelled so repeatedly to attend to the repairs of his wheels. Now, it seems to me that the sole and *only* cause of the shamefully poor wheels that are being made in this country is for a *want* of a *proper mechanical construction*; that pains is not taken in the selection and preparation of the different kinds of timber which the case demands; and where this precaution is sometimes exercised by the *proprietor*, the wheel is still *inferior* for the want of some good, *honest* workman to put it together. In addressing myself as I do, to the readers of this Magazine, let me not be understood as overlooking the great fact that there is exceptions to all rules. That the country is full of "playthings" called wheels, is a fact which cannot be denied, and my object in writing this is not to instruct, but with the hope that some of the talented contributors to this journal will give the subject their attention, and through this medium speak their sentiments respecting this evil and give us the *remedy*.

It is pleasingly astonishing to me to notice how rapid has been the progress of coach making for the last 15 years.—What a change, for the better, has been brought about in a point of style; and what an improvement, too, is visible in the weight of a vehicle now, compared with what it was 15 or 20 years ago; but in the swift march of improvement the *wheel* seems to have been forgotten and neglected altogether.

J. R. F.

Cincinnati, Ohio, Aug. 29, 1856.

For Saladee's Magazine.

BACK PANNELS.

MR. SALADEE:—Allow me to offer a few remarks for the benefit of a certain class of your readers through our Magazine. The matter I allude to is the application of the back pannel to carriage and buggy bodies. It is a very frequent occurrence to see a back pannel split, not only after the carriage has been in actual use, but as often before the job is entirely finished, and while yet in the shop. It is not unfrequent that I employ a journeyman body-maker who attempts to finish the back without any strainers across the pannel, thinking that the canvas, though improperly put on, will answer every purpose as a support for said pannel. A few days ago I was in a certain shop in Lancaster, and while there I noticed a journeyman who was finishing three Phaeton bodies. At the time I entered the shop he was putting the canvas on the inside of the pannel without having put in the necessary strainers, and what was worse, when the canvas was apparently dry, it was puffed out from the pannel here and there, from the fact that no care was taken in its application; the air not being properly excluded.

Now, I do not at all wonder at seeing pannels thus treated split open. In the first place, the pannel, by reason of its shape, is on a

constant strain, and if not properly supported on the inside, it *can not* endure the shocks it is perpetually subjected to, and I venture to say that in nine cases out of ten where the pannel splits, if examined, it would be found void of all manner of support on the inside; and *if* any, a careful inspection would prove it was improperly applied. It is, therefore, of the utmost importance that the body-maker should give this branch of his work the strictest attention, for after a body is finished, painted and trimmed, there is no part of repairing so tedious and difficult as that of replacing a back pannel. Experience and close observation in this part of the carriage for the last eight years, has fully demonstrated the fact that there is not the least occasion for those pannels to be splitting if put in as they *should* be.

Believing, as I do, that "the wise are often taught by the fool," I will venture to state what I consider the *right* way to apply a pannel to the back of a body. I would therefore recommend that the following points be strictly observed, and my word for it that such a thing as a split pannel will never be seen, except broken by *force*.

1st. Be sure your pannel stuff is *thoroughly* seasoned.

2d. Use no pannel for the *back* that is not perfectly straight in the grain and free of curls or small knots.

3d. In fitting the pannel be sure that it does not bind harder in one place than in another, and when bent ready to put on, see that it goes to its intended locality without any compulsion.

4th. Before bradding on the pannel, fit three strainers (of soft wood) in the back, (perpendicularly) an equal distance apart, and of a corresponding shape with the curve of the *back*, and secure them permanently. (If, however, it is a grooved pannel, these strainers should be fitted as above, but not fastened until *after* the pannel is put in.) This done, you are ready to brad or clamp on the pannel.*

5th. Cut out pieces of strong canvas to correspond in size with the spaces between the strainers, but enough larger so as to take hold on each side of the strainers when glued in. Have your *glue* as hot as you possibly can to handle it, and thinner than for ordinary purposes. The vessel which contains the glue should be of considerable size, such as the largest sized glue kettle. The canvas is then taken piece by piece and immersed in the glue with the hands and wrung out so as to leave it thoroughly moist, when it is applied to the pannels, and here great care should be taken to make it adhere perfectly to all parts of the pannel. When thoroughly dry, apply one coat of *lead* paint to the canvas and strainers. This will *prevent* pannels from splitting, and they will always keep their shape.

A. R.

*The best manner in which to apply a back pannel where it is to be bradded on, is to clamp it first. After the frame of the body is set up and before the sides are put on, apply the back pannel as follows: viz: work out two pieces of soft wood of proper size, and so shaped that the inside fits the outside of the back curve. This done, lay one on each side of the back, together with a half dozen hand screws. The pannel bent ready to go on, glue the parts which come in contact, and by the aid of an assistant, press the pannel to its place, and on each end apply one of those pieces, and clasp the whole with the hand screws, and let them remain till dry, after which it is bradded and canvassed.

For Saladee's Magazine.

SOMETHING MORE ABOUT AXLETREES AND WHEELS.

MESSRS. EDITORS:—In the August No. of your Magazine, a correspondent over the signature of "S. M. W.," who so industriously criticises a former writer in your June No., I venture to say, stands in need of correction himself; for, in *his* article "I noticed an error, (using his own language,) which should not be indulged in," or suffered to pass without remark. "S. E. T." very properly observes, that "we cannot very well adopt a rule which would be applicable to both wood and iron axles," in the setting—a fact I apprehend that cannot possibly be successfully controverted—after which he gives us his plan, &c. Now, without being willing to endorse all which your March correspondent advances, I must be allowed to say here, that, in that particular which refers to making one axle longer than the other, he is endorsed in practice by nine-tenths of the fraternity in this country, and I think too upon correct and practical principles, which I hope in the sequel to make self evident.

If *all* carriages were made with the spokes plumb, that is, with the spokes radiating exactly perpendicular from the hub, then it is plainly seen that both axles of a vehicle should be made of an exact length, but until they are thus made, it alters the case very much, notwithstanding "S. M. W." tells us "it matters not as to

the height of the wheels though the front ones were but two feet, and the hind ones five feet, so that they are dished alike," and that he would still set both axletrees the same. I would just like to see one of "S. M. W.'s" vehicles—say a business wagon for the purpose of illustration—with his front and back wheels dishing alike, and three feet difference in them on a hill side, or the one side wheels in a deep rut, with a heavy load, and the weight all bearing heavily on the lowest side, as it unquestionably under such circumstances would, and what do you think would be the consequences? Why, supposing his hind wheels stood with the spokes perfectly vertical, in which position they would be capable of supporting the greatest weight, the spokes in his front wheels would be found in such a position that if they did not pull out of the hubs, or break short off at the tenons, it would not be because such a catastrophe had been provided against; but, simply because the weight of the loaded wagon was not sufficiently *weighty* to crush them down to the earth.

Some men seem to think that the sole object in making a wheel dishing, is for the purpose of contributing towards keeping a tire on a felloe. Others again, contend that for perfectly level roads, such as are found McAdamized, or in cities, a wheel ought to have but little or no dish. The primary intention, doubtless, of the the earlier wheelwright, in giving to his wheels the excessive dish he was accustomed to, was to provide against the causalities of deep ruts, &c., spoken of above; but it has been left to the more modern coach-maker to discover that the spokes of his no dished wheels, by the trembling motion imparted to them by driving over paved streets, that although they may not actually "work," yet they will present all the signs of their being "gone" by cracking the paint, and loosening the putty, so that the probabilities are, that a customer becomes terrified, and will leave you forever, dreaming all the while that his wagon is liable to break down at any moment, unless he is furnished with a new sett of wheels.

But "S. M. W." teaches us in his conflict against error, that which was extensively known before, that, "should it be found after inspecting a sett of wheels that have just been hooped, that one or more of them have a little too much dish, there is a very simple (?) process by which the wheel can be straightened without removing the tire," &c. Now I will predict that if your readers follow his falacious advice, by laying the face side of a wheel downward on an anvil, and striking the opposite edge with a hammer all the way around, that they will find out when too late, that they have acted very inconsiderately. Let us see how this advice in practice will end. It will certainly take the dish out, but in so doing it will destroy that very horizontal resting of the tire on a plane for which "S. M. W." contends, and make bad worse, by stretching the tire on one side, and cause a seam to gap open all around the wheel between the tire and felloe, besides rendering the tire more liable to slip off on the back side of the rim, and where the dish of your wheel will be after a few days, would be a difficult matter to foresee.* If your light wheels to-day dish a little too much, let them stand a few days; they almost invariably lessen in dish the longer the tires remain on the wheel. If you have inadvertently given your tires too much draft, causing the spokes to bend, the tires should be taken off at once, drawn a little, and re-set again, hot. Let me give your readers my plan of setting spokes in the hub. Having driven the spokes in the two hind wheels first—where there is any material difference in the height—I remove the guide pin in the sett to a hole therein, lower down, the exact length from the center of the hub to where I wish the shoulder of the "tang" cut on the front shoulders, and sett my guide pin accordingly. After securing my sett thus regulated, to the front hub, I am enabled to get the spokes to radiate with precision, exactly the same in all my wheels, from their hubs. By this means they are better enabled to withstand the pressure, and overcome the dangers of the position in which by supposition I have placed the wheels on "S. M. W.'s" plan; they are the more readily made to face, and there can be no difficulty in making them track as well as "S. M. W." claims for his "alike dishing wheels." But on my plan of making wheels, axles of equal lengths must be out of the question; the front one *must* necessarily be the longest in order to furnish a perfect track.

I trust that your correspondent and readers will pardon me if I

*That this will be the result is proved to a demonstration, by actual experiment in my factory this week. A gentleman for whom I had sett tires on a new wheel, deeming them too light, in my absence had the workman perform "S. M. W.'s" hammering operation with the same result as described above, nearly ruining the job, and effecting what his judgment as a coach-maker, should have taught him before; that such procedure was wrong in principle.

have appeared egotistical, or unnecessarily lengthy in this communication, and give us their views on this subject, and thereby further the objects of your Magazine, which is to impart instruction by the diffusion of different ideas among coach-makers.

MENTOR.

Westport, Conn., Sept. 10th, 1856.

EDITORIAL CORRESPONDENCE.

NEW YORK, Aug. 16th, 1856.

BRO. SALADEE—*Dear Sir:*—Notwithstanding the (to a New Yorker) singular sounding sentiments put forth in your editorial on 'New York Fashions' in your last year's issue for October, we shall venture to make a few brief observations on the probable changes which we think are foreshadowed as being about to prevail here, in the style of finishing light work, in the full belief—your editorial to the contrary notwithstanding—that this city *does* lead the American mind in its taste for carriage work; and we also further believe that in so doing we are but anticipating the desires of the most of our readers. We are so confident of this being the fact, that we shall not here, even, take the pains to convince you that New York is a great place; or, that it is the centre of Fashion for the New World, for, "indeed" as you have somewhere indicated "the motto seems to be *New York Fashions* or none at all, and among the many there are some of our fellow-craftsmen" who think just as we do. Fashion then we shall suppose to be the goddess at whose shrine a larger portion of the human family pay their devotion, and whose followers turn their thoughts to this city with more earnestness than ever Mussulman did his face towards Mecca, consequently we shall take it upon ourself to acquaint our readers with all such changes as take place in the construction of carriages from time to time, and thereby endeavor at once to gratify those who are constantly writing to us in order to find out, what are the fashions in New York?

In the first place we would remark that the square bodied buggy in the March No. of this Magazine is now, and has been the entire season, about the only form of buggy popular with the public here, and we do not observe the least indication of any change for the coming spring. The stitched borders on the boot, however, appear to be going out of fashion, retaining only the centre figure, and in many cases this is stitched with black thread where formerly white thread has been employed. We are strongly of the opinion that creased figures of a diamond, square chequered, or other form will again supercede the pressed figure altogether in the mode of finishing the boot, backs and sides of the top, inside the dash, falls, &c.; a plain and neat style of finish pervading the entire article, when city manufactured. The double perch is still a great favorite, and is found in practice to possess many advantages over the single one, and is not as liable to get out of order, and in addition gives the square buggy a more finished appearance. Some of the more tight and fancifully finished trotting wagons are made extremely narrow on the seat; one object doubtless is for the purpose of lessening the weight for the 'bloods' here are as particular about the weight of their buggies, as they are about the weight of the meat they buy of the butcher, at the market; another reason is the provident one of preventing the *imprudent* customer from crowding into the seat three persons when the lightness of the vehicle is scarcely suitable for carrying two with safety. Why, sir, were you on some fair day to take a suitable position at some favorable point on the Fort Hamilton road leading to Coney Island; or, on that city race ground called the Bloomingdale road, we are certain you would be led to think that a larger portion of the passing vehicles were conducted with the express end in view of rivalling that of Mab, Queen of the Fairies, concerning which Michael Drayton tells us, that

"The wheels composed of cricket's bones,
And daintily made for the nonce,
For fear of rattling on the stones,
With thistle-down they shod it:"

so frailly they seem to be made in order to meet the fancies of the fast men of the times, of whom our Authors' Pigwiggen is a fair representation as his character is illustrated in the *Nymphidia*.

On reviewing the subject of business connected with carriage making the past season thus far, we are led to the conclusion that although nothing very driving has been done, yet a healthy and safe business has been performed; a great improvement over the year preceding; but the serious and prolonged depression in financial affairs

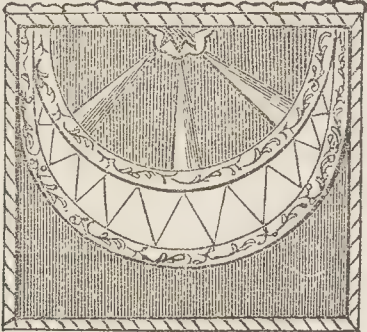
generally, still seems to preclude every possibility of our occupation being as successful as it was three years since for at least, two or three years in the future, as most men prefer buying bread for their families, to purchasing such luxuries as carriages are generally considered. Intending to give you something next month about carriage making and carriage makers here, I am

Yours, very truly,

STRATTON.

TRIMMING DEPARTMENT.

M. G. TOUSLEY, OF OHIO, EDITOR.

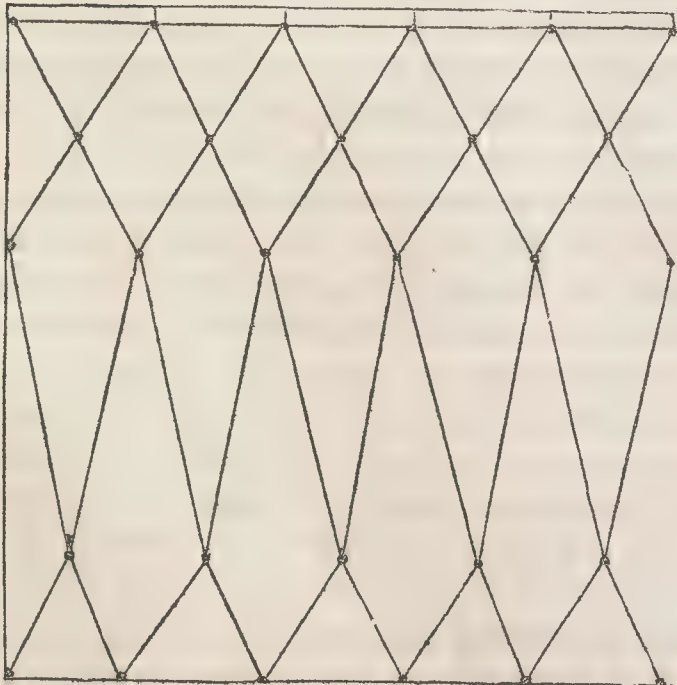


The above is, we believe, an original design for a carriage door; very light, very neat and somewhat elaborate. The top is a simple "herring bone;" the part below is a half circle fall bordered with lace and laid in quartering platts, the points of which are covered with an ornament made in the following manner: A scalloped half circle is cut out of patent leather—white or black—a half star with a point for each scallop is taken from the centre, and covered with cotelean; (if such is the material used) the two are then pasted and set on to a piece of thin leather and the same scalloped edge pasted a little and set directly to its place around the star but hiding the edge of its cover; when dry it is trimmed on the edge and placed on the centre of the plat-circle, and stitched through it on to the body lining. If the door has an ivory handle it will be supported by small straps or cords attaching under the ornament. The next lower division of the door is a light row of points long in the centre but coming to a point at each end of the sweep; the second circle of wide lace finishes them at the bottom; the fulness of the upper edge looping over the butt of each point, which by receding to the lower edge forms a second sett of down points. The bottom is plain cotelean. The outer edge is finished by tacking seam lace around, rolling it over a cord and seaming it in. The door, if built upon a heavy body and properly tacked on, will need no stuffing behind to support it. I came near forgetting to mention that the points are confined with braid.

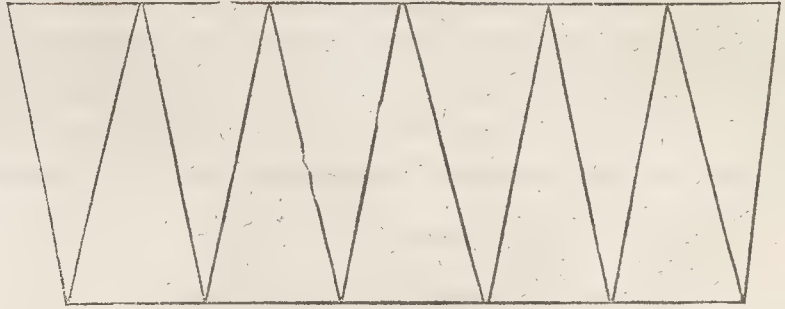
[The following communication and drafts are from a friend residing in Quincy, Illinois.]

For Saladee's Magazine.

Skeleton Body for Back.



Swell Piece.



FRIEND TOUSLEY—*Sir*:—The Magazine is received and its contents perused with both pleasure and profit. The above style of draft is for a back which is considered quite fashionable in this section. Its main peculiarity is the points over the swell, and as the forming of those in the ordinary way is no easy task, I will state my method of doing it. I form points with muslin stitched to the swell piece; stuff and insert after the top is stuffed.

This back is particularly adapted to light pleasure carriages. Bronzed leather worked after this model works well, and looks fine.

Yours, truly,

C. W.

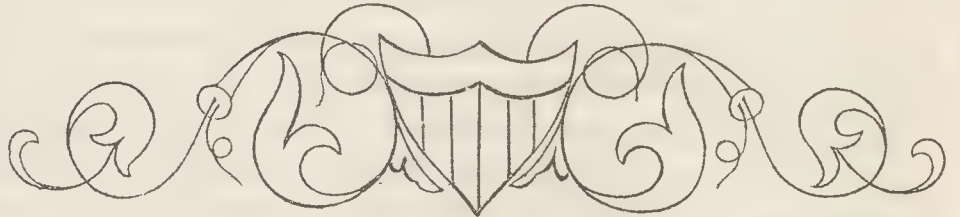
[Why not tuft the outside and swell on at the same time, then stuff and work each way.—ED.]

SCROLL DESIGNS.

Plain Leaf Vine for centre finish in light pieces.



Breast Plate Scroll Platt.



Scroll Vine.



Ornament for Bow Socket.



Fruit Basket.



Scroll for Cushion fronts.



One similar but more elaborate.



A Rose Sprig.



Designs for Dash corners in next No.

EDITOR'S TABLE.

OCTOBER, - - - - - 1856.

OCTOBER.

Autumn winds are sighing,
Through the forest lone;
Summer flowers are dying,
Summer days are gone.

Forest leaves are falling
Withered to the ground,
Many hearts appalling
With the lonely sound.

Gone, the merry birdlings,
To a fairer clime;
Chilling are the breezes,
Gone is Summer time.

Welcome to the fire glow
Of our own hearth-stone;
Happy while the hours flow
Though the Summer's gone.

OHIO.

A friend and brother mechanic of ours who is extensively engaged in the manufacture of carriages in Bridgeport, Conn., has the following in the corner of a business letter addressed to us a few days ago:

"Allow me to congratulate you on the success of the 'Coach-Makers' Magazine;' it is a publication much needed, and the manner in which you have thus far conducted it reflects not only great credit upon yourself as an enterprising man, but upon the whole fraternity, in proving themselves able and willing to support a publication of their own.

But I must confess to you there is one thing connected with the Magazine which I do not entirely appreciate or comprehend, and that is, that the editor of any journal which has become so popular as that of yours, should reside way out there in the 'Buckeye State.' If, indeed, like a newspaper, whose circulation and influence is limited to a certain degree within the borders of *one* State, then, of course, I could see the propriety of publishing it in *that* State, but when a publication like that of the Coach-Makers' Magazine, whose circulation knows *no* limits, it does seem to me that its 'Live Editor' ought to have his 'abiding place' with us *right here in Bridgeport*; (or which you proposed to call Coachport) or if that would not suit his good taste, I would not offer any great objection if he would condescend to live in Boston, or even in New York—any where rather than have him so far out of the way."

This worthy brother is not the *first* to throw these well meant hints in our way, nor is he the *only* individual who looks upon our "abiding place" as "*way out there in the Buckeye State.*" They frequently speak of it as a kind of "*out of the way place*;" "*way*

off," where it is deprived of all those refined privileges and advantages so common in the old States.

This, by the way, reminds us of the pleasant day we spent with Bro. Stratton, in New York, on the first of January last. On that "memorable day," as might be imagined, we came in contact with people of all descriptions and of almost every grade, and among the "great multitude" we found many who were both pleasant in their manners and interesting in their conversation. Nearly every house we entered, our good Bro. S. would very politely take the precaution to introduce us at a Western gent, which circumstance called up a considerable amount of inquiry respecting our place of residence, the condition and present population of the State, &c., and many expressed themselves utterly surprised after hearing our account of Ohio; it being far beyond what they expected. On one occasion in particular we were very much interested and amused with the conversation that passed between ourself and the "good lady of the house." She proved to be very intelligent, but no better informed than many others in the old States who still harbor the notion that Ohio is *way out West*. In speaking of the rapid progress of the age, and the "individual comforts" with which its march was blessing us as a people, she inquiringly remarked—"But I presume your country is so *new* you do not have the advantages of Railroads or Gas-lights?" "Why! madam," said we, "what kind or manner of country do you imagine Ohio to be?" O, well, knowing the State to be *young*, I suppose, of course, it is not so far advanced in the scale of improvement as the older States." The reader can imagine her surprise on being told that with *one* exception, Ohio has more railroads than any other State in the Union; and as regards *other* improvements, she is not a peg in the rear of any of the *old* States.

And so it is with many other of our Eastern friends; they seem not to realize the great fact that there is no parallel in the European history to the account of the growth and progress of such States as our Ohio, which has sprung up as by magic. Those still living, who can recollect the departure of some of their relatives for Ohio, some 30, some 40 and others 50 years ago, seem, for the moment, to forget the age in which they live, and talk of Ohio now as they did then.

It is true, that much less than a century ago, not a white man breathed within the limits of places which soon were to be covered with cities and signs of cultivation. Wonderous have been the changes since *that* day. The rude exuberance of nature has yielded to the patient labors of the woodsman; peaceful flocks and herds are seen where then were the wild beast of the forest; the busy hum of business is heard, where the yell of the Indian warriors but yesterday seemed to awake echoes. All is changed, save the water courses, the hills, and the traditions which still hover over the land like a mantle of romance and mystery.

Ohio is no longer to be regarded as the rustic, unimproved, and illiterate State she was in 1812; but in viewing her to-day, she proves herself third to no State in the Union. Then why talk of her as "*way out West*;" "*out of the way*," and "*behind the times*?" Why, the fact is, this notion is entertained only by those like our good Brother in Bridgeport, who have never *seen* the State; those who have once passed through it, will tell you, not only of the wonderous beauty of the State in a natural point of view, but they will likewise bear us witness that she is fully up with the times and the "spirit of the age." And of this fact our friend would be convinced if he would, in the Spring of the year, take passage at Pittsburgh on one of those magnificent steamers

which glide swiftly down the calm, silvery waters of that winding, lovely, and romantic stream, the Ohio, or "La Belle Riviere." After the first fifty miles have been passed over, let him take his seat on the hurricane deck and he will have a scene more fascinating in all its attractions than he could any where find in his own native State. On his right he would have the State of Ohio, strewn all along with beautiful villages, farms and pleasure grounds, with tree, blade and flower in the delightful bloom of spring. Here a hill clothed with trees, reaching even to overhanging, and mirroring their green forms in the glassy tide, stretching gracefully away from the river's bank, teeming with the growing products of the husbandman; while yonder a beautiful lawn, anon a village or a pleasant farm house, rendering the whole scene picturesque and lovely beyond description; and in due time he will behold the lofty spires of a great Western mart glittering in the sunbeams. Presently the levee will be brought to view, crowded with drays, hacks, carriages, and merchandise, making it the picture of life and immense trade. Here we would have him stop, for it is the metropolis of Ohio, Cincinnati. We would have him put up while he sojourns in the city at the Burnet House, so that he might have a sample of *Western* Hotels, and as he is but a few squares above the Bending Establishment of Messrs. Royer, Simonton & Co., on the same street we would advise him to direct his steps to that place. Here he will have another sample of western enterprise, the extent of which will at once excite his wonder and admiration. Having at this place introduced himself to Mr. Royer as one of the craft, and a stranger in the city, *that* clever and very sociable gentleman will conduct him to the several extensive Coach Factories in the city, and all other places of interest, and our word for it after he has visited that of Geo. Miller & Sons, J. W. Gosling's, and also that of the Messrs. Bruce's, he will be satisfied that carriages of every variety are not only manufactured on the most extensive scale, but that in point of style and finish the Buckeye Coach-Makers are not surpassed even in the older States. We would also have him notice the "thousand and one" factories of other branches in the Queen City, and he will perceive that in *manufacturing*, this metropolis compares favorably with that of any other in the country. But in order that our friend may see Ohio as it is, he must penetrate into the interior. We would therefore recommend him to take the cars (by the bye a very common conveyance in Ohio) on the Little Miami Railroad, and start for our place of residence, Columbus, a distance of 120 miles. On this route he will pass through the richest and most highly cultivated section of country west of the mountains; he *never* looked upon a more happy and prosperous scene than that which passes before his gaze as he is riding over this road. And after he has seen Columbus and the "Capital," (a structure of stone and iron which in point of magnitude and costly splendor compares favorably with the great Capital at Washington) and the flourishing country with which it is surrounded, he will *then* be capable of *appreciating* and *comprehending* why the Editor of any Journal that has become so popular as the Coach-Makers' Magazine, should reside *way out* here in the Buckeye State.

We are a native of the East ourself, and we are well aware that Bridgeport is a charming little city, and one in which we might undoubtedly live happy and do well. Boston is likewise an interesting *village*, and (using our friends' expression), "*even in* New York City we could find much to interest, instruct and benefit us if we were a resident. But still we have never yet seen that spot which contains so much to attract the attention of men in *every* station of

life as Ohio, and hence we prefer it as our place of residence. And moreover *that* man is *dull* indeed who cannot *see* from the present mighty rush of *progress* and *improvement* in the *far* West that the day is not far distant when Ohio will be nearer the centre of attraction than any of the New England States to-day.

Editorial Chip Basket.

BY E. M. S.

This fellow picks up chips, as pigeons peas.—SHAKESPEARE IMPROVED.

MORE ABOUT THE COACH HIRE OF THE N. Y. CITY FATHERS.—Mr. Flagg, the Comptroller of the city, in answer to a resolution of the Board of Aldermen as to carriage hire, has just sent [Sept. 3] in his statement of the sums paid for the Mayor's Office, from which it appears that the total amount paid from Jan. 22, 1855, to Aug. 6, 1856, is \$1,487,25. This added to the bill run up for the city to pay for our city fathers' pleasure, as noticed [p. 101] swells the amount to nearly \$12,000 a year, (!) but it is quite refreshing to hear the Comptroller saying, that "he does not find in the charter of the city, or in any act of the Legislature, any law authorizing money to be drawn from the treasury to pay for carriage hire for the Mayor, the common Council, [Yes, and *common* enough they are, "sure,"] the Comptroller, [good] the Street Commissioner, the Commissioner of Streets and Lamps, Repairs and Supplies, City Inspector, or the Counsel to the Corporation. When there were neither omnibusses nor railroads there might have been, in many cases, a necessity for the hire of carriages, and the usage has continued after the necessity for it has ceased, in most cases." The Comptroller therefore, very properly declines hereafter paying any more bills, for "the fathers" except those for celebrations, authorized by the charter of 1853, or by other acts of the Legislature, until the courts decide as to the right of the Common Council and the Departments to tax the people so recklessly for carriage hire.

IMPROVE YOUR LEISURE HOURS.—We often hear our fellow craftsmen saying, that they can neither afford to subscribe for *our* Magazine, nor find the time necessary to read it, even, if they did. But these excuses will not take with us, while we know they daily indulge in injurious practices, "using the weed"—*with fire at one end and a fool at the other*—which costs them some \$15 a year. You had much better take *our* gratuitous advice, *eschew* the evil, subscribe to some good Magazine (ours of course) and thereby save annually twelve dollars from this reform alone. But you will say, "I cannot find time for reading, my business calls for so much attention." This is but a substitute for no excuse at all where the ten hour system is adopted as extensively as it is in our country among carriage makers. Let us look at this subject; suppose you get out of bed at five and study until six in the morning—return again to your study at 7 until half-past 8 o'clock in the evening, you will find that in 52 weeks (Sundays excepted) you have well employed 780 hours, or *seventy-eight days* of ten hours each, and find that you have gained something which is not only to yourself satisfactory, but will be an accomplishment in your character that will gain the respect of your fellows. Try it for the next year, and if you do not find that "knowledge is power—is wealth—is honor," you may set us down as being a false prophet—that's all.

THE ADVANTAGES OF ADVERTISING perhaps were never better illustrated than as reported to us by a friend the other day in this city. Said he "a few days after my card appeared in the Coach-makers' Magazine, a customer, an entire stranger, called upon us

and purchased seven hundred dollars worth of goods with the cash in hand." This we thought to be a pretty good investment for his twenty-five dollars. Now, did we not think that there is just as good a chance for making money by *some other friend* of ours, we would not have taken so much pains to have told you this secret.

CHIP POET-WE-TRY.

The world—'twas by a witty poet said—
Is one great stage—an Om-ni-bus supposed;
The men and women—travellers on the road,
All actors merely—till the farce is closed.
No cent emi ta dolore voluptas

THE KOPHILON.—Our readers may well ask the oft repeated question of What's in a name? when their eyes see our heading to this paragraph. From the *London Engineer*, where the vehicle is illustrated, we have it described as a cart or carriage, with an open frame work body, with wings on each side, extending above and over the wheels, presenting to the eye, when viewed from the rear, very much the appearance of a certain long-eared-animal, which we are accustomed to consider as an emblem of folly, and of which attribute, we should judge this foreign *Kophilon* is a fair specimen. If the reader will take a common scallop-shell and place the hinge side downwards he will obtain a good idea of a side view of this new construction; to this hinge side let him attach the shafts of a double curve in form, so as to bring the line of draught below the axis of the wheels—supposing a hole for the axle is made in the centre of our shell—upon which the vehicle moves, then let him use double C springs to hang the body or seat upon the axles, in such a manner as to allow them to operate freely within the central and open frame work of the body, and then the description is complete. This new English bantling is very similar to a thing constructed by us some 10 years since for a customer, planned by a 'practical machinist,' and we may suppose that no practical carriage builder would originate such nonsensical things.—We tried to convince our patron that his contrivance would not meet his expectations, &c., but all to no purpose, the vehicle must be made, and make it we did, with axle through the body, and wheels seven feet high! Why, the editors' 'three wheel,' could not begin with *ours*, at all, in fact it went a 'leetle' ahead of everything before or since, unless we except this 'Kophilon.' When completed Mr. ——— never used his invention except in the night time and if unfortunately he was caught out in the morning, he always took the most obscure streets of the city to find his way home in. *Vive la Humbug!*

ACTION FOR ILLEGALLY TAKING A WAGON.—This suit in the August term of the Marine Court, in New York, before Hon. Judge McCarthy, may be of some interest to a part of our readers, we therefore give it as as reported in the *New York Daily Times*:

Wm. S. Martin vs. Henry McGuckin.—The plaintiff is a wheelwright and wagon builder. In June, 1855, he manufactured a wagon, and hired it out to one Patrick Smart, who is a carpenter and builder. The defendant, in this suit, obtained a judgment against Smart, and had a receiver of his property and effects appointed by the Superior Court. On the 6th June, 1856, defendant went and took possession of certain property—among others the wagon in question, claiming that the property, in point of fact, belonged to Smart, and that he, (defendant) was acting under the orders of Martin Waters, the receiver, and so justified the taking.

The proof of ownership was conclusive for the plaintiff. The only question of doubt was as to the value—plaintiff's witnesses testifying it was worth \$115, and defendant's down to \$40 or \$50.

The Court gave judgment for plaintiff, \$82 50, and costs.

CARRIAGES, AND A BEAR STORY.—The Mormons had a grand blow out on the 24th of July, in celebration of the ninth anniversary of their entrance into the great Salt Lake valley, at the head waters of the Big Cottonwood. In the procession there figured

seventy-one carriages, and 201 horses and mules. During the procession one of President Kimball's wives [the miserable man] desecrated a 'native' sitting on a rock by the roadside, apparently astonished at seeing so many carriages and women in so wild a region. Bruin could not rest satisfied with his distant view, and seeing but few men in comparison with the great number of the fair sex in the procession, marched up close to the road, in order to find out what was going on among the "Saints." Bro. Decker being "around" with his "shooting iron," the "varmint's" curiosity cost him his life.

ANOTHER NEW STREET PAVEMENT.—In Southampton street, High Holburn, London, has been recently laid down a specimen of a new description of pavement manufactured by Mr. Norris at his Asphaltate works. This paving is a combination of wood and broken granite cemented with strong asphaltate, into blocks, about 24 by 16 inches, and nine inches deep. The advantages claimed for this pavement are; durability superior to that of wood; freedom from dust, and mud and noise—noiseless as wood; never requiring to be watered, while it ensures safety to horses, as the surface presents alternate layers of wood and stone, giving a good foot hold in both wet and dry weather. It has been used now for three years without any appearance of injury and is more economical than either wood or granite.

CINCINNATI.—In answer to the many inquiries we are constantly receiving from our western subscribers as to which house in Cincinnati furnishes the best assortment of Coach Hardware and Trimmings, we take this method of replying to all. Messrs. Hunter, Coburn & Edmeston are the only gentlemen, so far as we know, doing an extensive business in that way in the Queen City. They always keep a good assortment, and one with which they never fail to please the purchaser; and moreover the terms on which they offer to sell their goods will undoubtedly secure for them a large and profitable patronage. The two junior partners of this firm are young men of marked business activity, and of that stamp which feels at home *no where* unless "up with the times" and moving along.

We, the undersigned, Carriage-Makers in Cincinnati, O., are using "Chapman's Patent Elastic Anti-rattling Carriage Shaft Fastener" on all work manufactured by us:—

CINCINNATI, August 13th, 1856.

I. & B. Bruce & Co., S. E. cor. of Third and Vine Sts.
G. C. Miller & Sons, Seventh St., bet. Main and Walnut.
John W. Gosling, S. W. cor. Fifth and Sycamore Sts.
John Wilts, Sycamore St., below Eighth St.
Roberts & Curtiss, 25 Fifth St., bet. Main and Sycamore.

We, the undersigned, Carriage-Makers in the City of Memphis, Tenn., are using "Chapman's Patent Anti-rattling Carriage Shaft Fastener" on all our new work:

MEMPHIS, Tenn., Sept. 3, 1856.

Noble S. Bruce & Co.

Contributors to this Number.

"BACK PANNELS,"	- - - - -	A. Renick, Ohio.
"WHEELS,"	- - - - -	Dr. J. B. Flanders, Ia.
"FRICTION,"	- - - - -	W. Wilson, New York.
"LIGHT CALASH PHÆTON,"	- - - - -	A. A. Smith, Jr., Ia.
"CRANE-NECK CITY CALASH,"	- - - - -	Thos. Rauton, Massachusetts.
"FULL CALECHE,"	- - - - -	J. F. Adams, New York.
"CUT UNDER BUGGY,"	- - - - -	Smith & Price, New York.

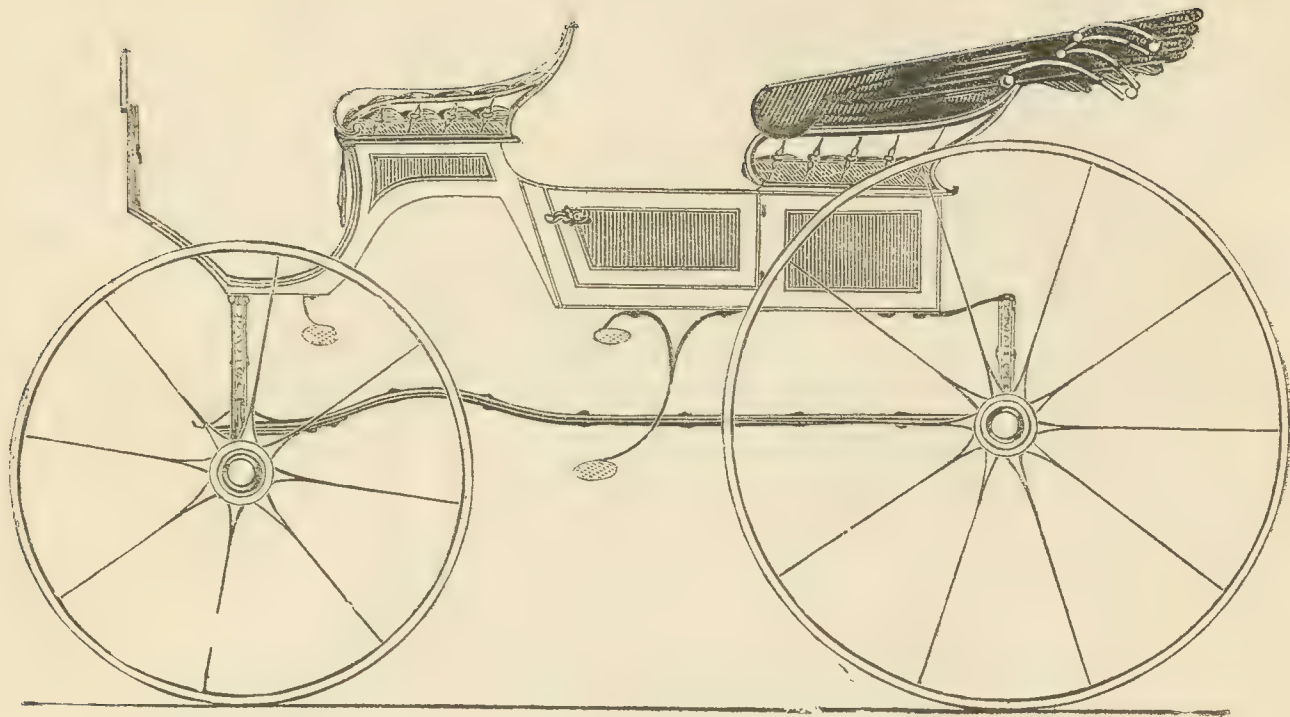


Fig. 53.—Jersey Box Phaeton.

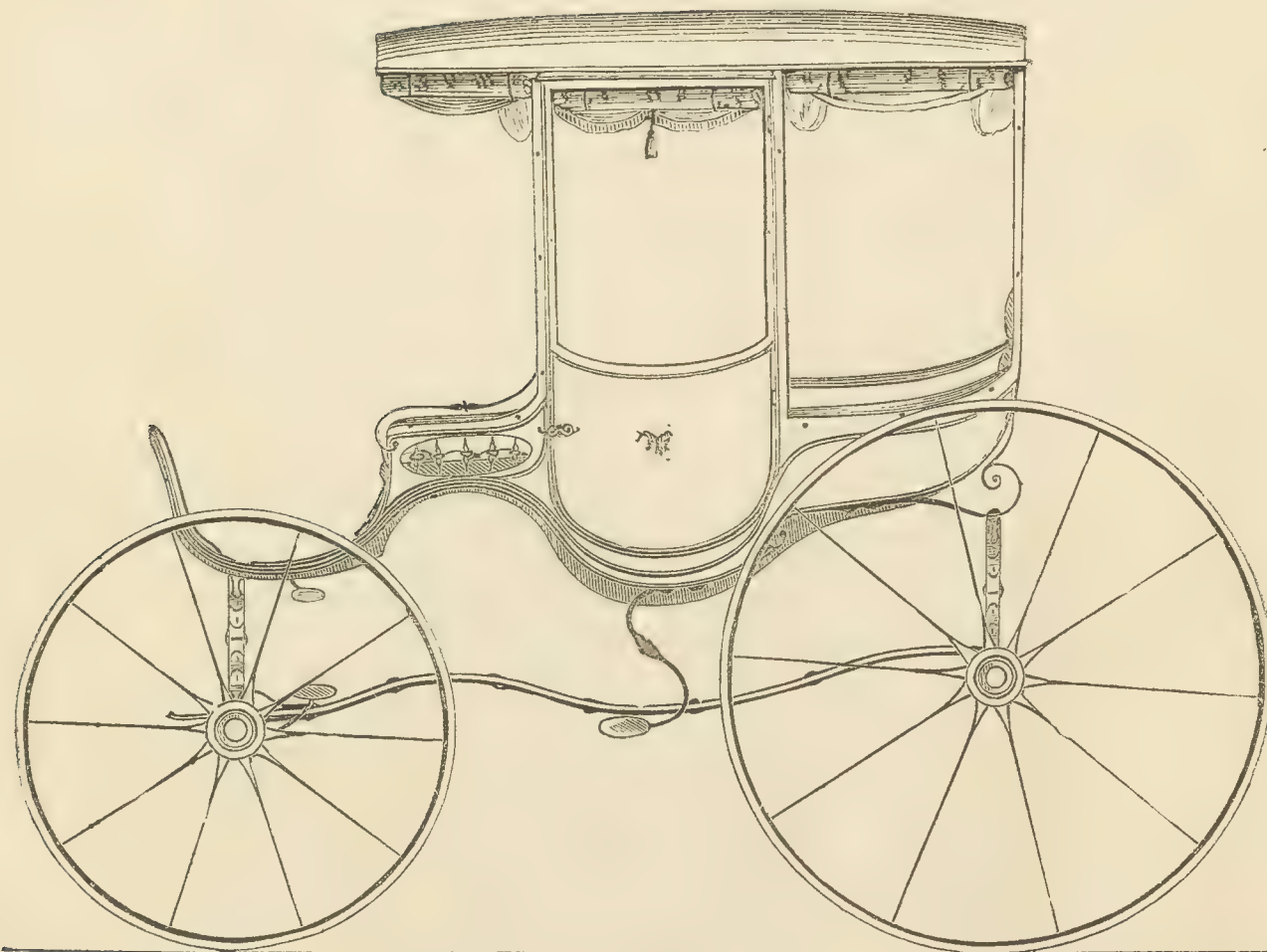
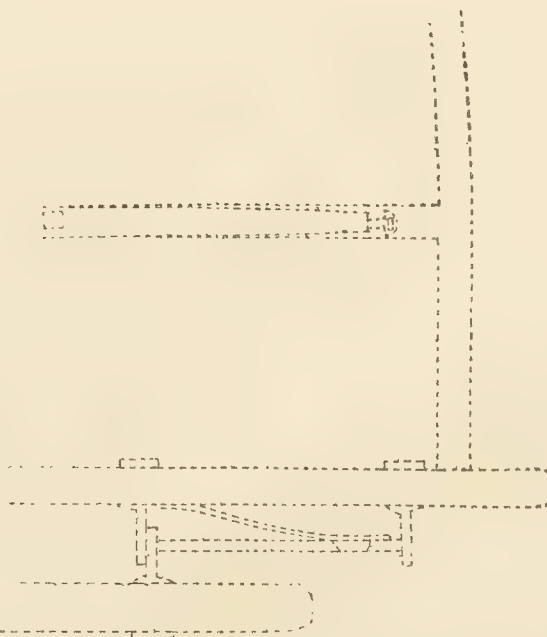
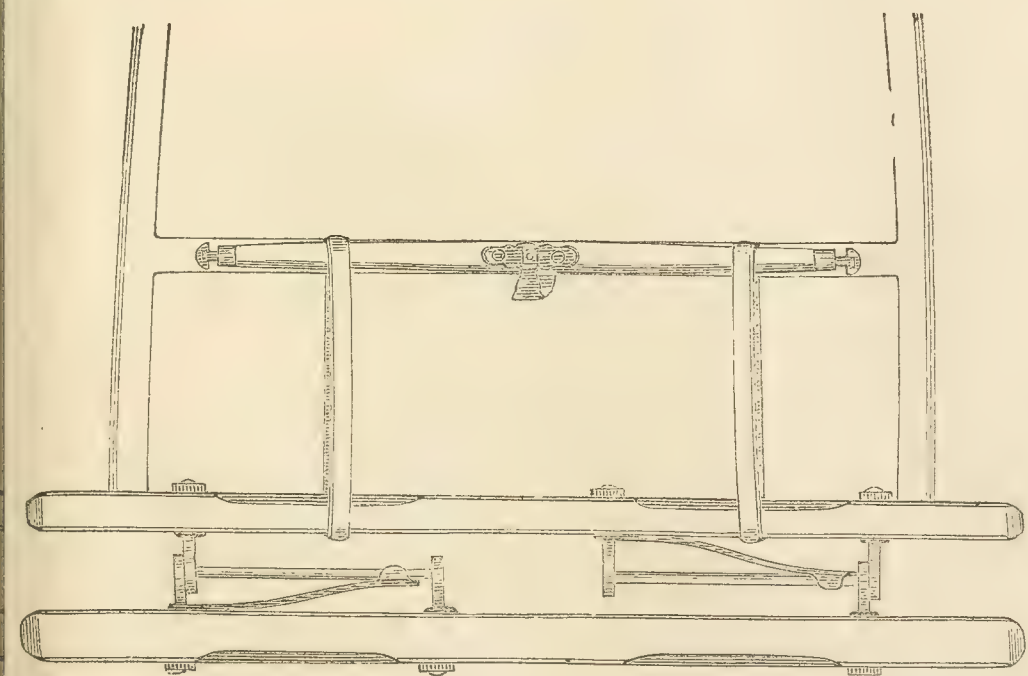
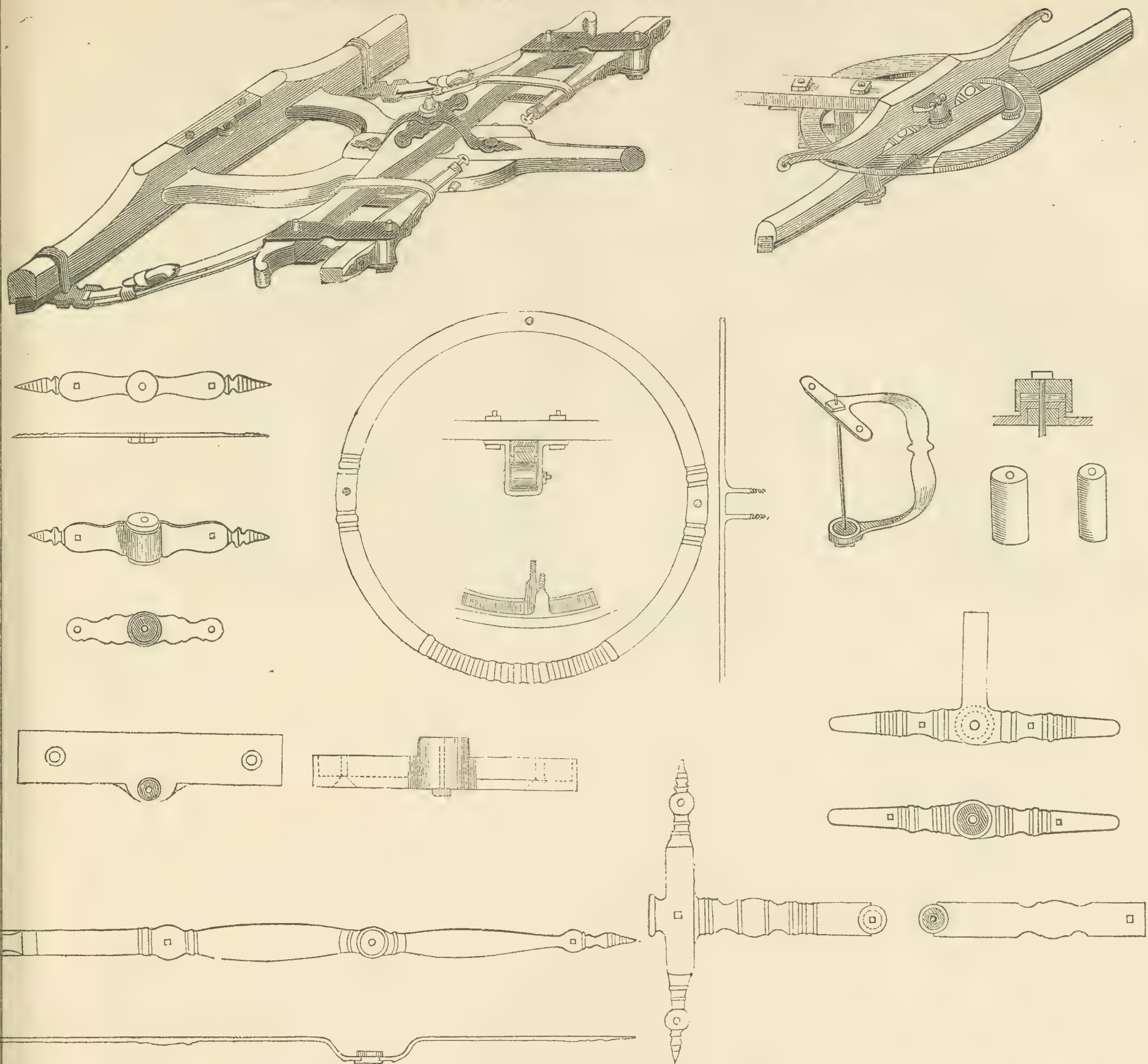


Fig. 54.—Four Passenger Rockaway.

PLATE XXVI.

Kenny's Improved Carriage Irons.



Kenny's Improvement in connecting Shafts to Sleighs.



Volume 2.--Number 11.]

November, 1856.

[E. W. Saladee, Editor and Proprietor.]

TERMS:

Single subscription one year	- - - - -	\$3 00
Clubs of three	" - - - - -	8 00
" " six	" - - - - -	15 00
" " ten	" - - - - -	20 00

Payable invariable in advance.

All Clubs, however, must be sent to one address.

Each person making a club of six, shall have his seventh copy sent gratis, and each individual making a club of ten, shall at the end of the year be presented with one volume of the Magazine complete, in fine gilt binding, with the name of the one to whom it is presented stamped on the cover in gilt letters.

All Communications must be addressed to the Editor, at his residence, Columbus, Ohio.

Persons visiting New York, who are not subscribers, can see the Magazine and subscribe by calling at the Office of the Coach-Makers' Magazine, 106 Elizabeth St. E. M. STRATTON, Assistant Editor, and Agent for New York city.

Office of the Coach Makers' Magazine, Columbus, Buckeye Block, Broadway.

Back Numbers, from January 1st, furnished to all new Subscribers.

TERMS OF ADVERTISING.

Standing advertisements for 1 year will be charged at the rate of \$12 per square for the space they occupy, (12 lines agate making a square) payable within three months from the time of first insertion.

All advertisements for a shorter time than twelve months are charged 50 cts per line for each insertion; Payable in advance.

Fashions for November.

For Saladee's Magazine.

FIG. 53—JERSEY BOX PHAETON.

MR. SALADEE:—I have for a long time been thinking of sending you some drawings for the Magazine, but have not until now found an opportunity to do so; but believing in "better late than never," I herewith send you two designs for carriages, which are entirely new and original with myself.

Fig. 53 is a very light four passenger Phaeton, with cut under in front, light, deep pannel sides, stick seats and calash top. It being drawn to a scale, the necessary dimensions for its construction can be easily obtained. I might however, remark, that the space between the two seats is somewhat longer than is generally allowed by the makers in New York City or Cincinnati; but where a small seat is used, on the inside, for children, which is very frequently the case in a carriage of this kind, the room is none too am-

ple. The superiority I claim in this design over all others of a similar kind, is, first, its extreme simplicity of construction—second, lightness; and third, beauty of form. As to its construction, the body is made in the ordinary way of solid side work. The rocker is exposed to view from the second perpendicular moulding to the left of the door handle, and is moulded off as shown in the drawing, and the front seat is applied in the same manner as to a buggy body. The rocker is made about the shape pointed out by the moulding next the opening of the door, and lower moulding in the side pannels under the back seat. Where the door is hinged a pillar is framed into the rocker, and supported by a lateral bar which forms the seat rail. Where the door opens, the rocker is permitted to extend about half an inch from the side for the door to close against, and the side is put on as in all ordinary bodies, and moulded off as represented in the sketch for a kind of Box Phaeton. I consider this an appropriate and elegant style.

Fig. 54 is an improved style of four passenger Rockaway. The new feature consists in the arrangement of the front seat. The oval figure can be cut in the solid pannel, and cross mouldings tacked on as represented, which indeed makes a very neat finish for ordinary work; but for the finer class something more elaborate is required. In that case I make a frame fork of the front seat, that is to say, the arm and a pillar connected to the front end of it and mortised into the rocker. This done, I take a half inch pannel the required size, and cut the oval through it; I then mark the locality for the small sticks. That done, I split the pannel longitudinally across the oval and bore the holes, insert the sticks, glue it together and apply it to the side, taking care to finish the inside as well as the out. The back quarter and door need no explanation, as all are perfectly familiar with it.

W. J. T.

KENNY'S IMPROVEMENTS.

On the second plate, in the Drawing Department of this No., we give an illustration of Mr. Geo. Kenney's improved castings for carriages, for which he has obtained three different patents. Every manufacturer who is true to his own interests, must eventually adopt these castings in the construction of his work. In the first place, they are made (and warranted) of a quality of malleable iron that will bend cold, and can be cut and drawn, and welded same as the best of wrought iron, and in the next place they are gotten up in a better and more perfect style than any carriage-maker could

possibly do them for thrice the amount of money paid Kenny for his; and lastly, they are not only cheaper, by over 100 per cent. in themselves, but being perfectly fitted, they likewise save time in their application.

The improvement he has introduced in the fifth wheel is the same as that made by us and suggested in the July No. of the Magazine, (page 78.) But in addition to that, he adds a friction roller made of rubber, and which is so applied as to bear continually against the under circle, and by that means the two circles are kept tightly together, yet there is elasticity enough in the roller to permit them to work freely. These circles he furnishes to the craft all neatly fitted up ready to bolt on the work and at a cost of about one half or less than the manufacturer can make a good pair of circles the ordinary way. Where a circle is at all employed, no other should be used but the one above described. It is certainly more durable and will never rattle.

His "Whiffletree Coupling" is the neatest, most complete, and simple little arrangement for that purpose we have ever seen, and needs but to be seen to be adopted. For further information address KENNY & DAVIS, Milford, New Hampshire.

COMMUNICATIONS.

SKETCHES OF EARLY TRAVELING IN AMERICA.

BY THE ASSISTANT EDITOR.

We read in the imaginary legends and tales of earlier days, how, that by the peculiar properties of a magical wand often bestowed upon mortals by those mysterious beings denominated fairies, or genii, a merely human personage could at will have his corporeal part conveyed to any region of country his fancy might choose, where he might find agreeable entertainment in the society of celestial companions, untrammelled by the cares to which we are here subjected. But to our own time it has been reserved for man to realize much more than fancy in her most happy reveries had ever before pictured in the mind of her fondest favorite; for quicker than thought the lightning speeds our messages along the telegraphic wire—swifter than the winds the iron horse conveys our persons and products to every part of the country, and man even seems to play with the waves of an angry sea, as he defiantly skims along its surface in his steam propelled vessel. Indeed, fast men, fast horses, fast roads all abound in this fast age, quite throwing into the shade every remembrance of "the flying machines" of our venerated grandsires, and all contributing to substantiate the truthfulness of the general charge that we are a fast people, and worthy of the name. But, dear reader, in order that you and we may better understand how our "daddies" got along in other days, let us glean out of the pages of history some "snatches of the past," claiming for ourself naught but the string which ties them together.

The first post route between New York and Philadelphia was established in about the year 1693, eleven years from the first settlement of the city of New York in 1682. The mails came through once a fortnight in the summer time.

In 1705 it is recorded that "the Philadelphia post is not yet come in (at New York.) It is supposed that the three days of rainy weather last week has hindered him."

In December 1730, "notice is given that the Boston and Philadelphia posts will set out in future to perform the stages once a fortnight during the three winter months." Notice is further

given that "whosoever inclines to perform the foot post to Albany this winter, is to make application to Richard Nichols, Postmaster."

The post route in 1748 from New York to Philadelphia was to Staten Island, (situated in New York bay,) in the "*Perriangwis*," a kind of flat bottomed vessel, and from thence "to the Blazing Star Ferry, (supposed to be across Staten Island Sound,) thence, the road to Brunswick, where the river Raritan was crossed in a scow; thence to Trenton, crossing the Delaware in the same manner. Another river was crossed on a floating bridge of planks, passengers reaching Philadelphia on the third or fourth day.

In 1753 one Bandrills advertises: "This is to acquaint gentlemen and others, who have a mind to transport themselves, wares or merchandize between New York and Philadelphia, that there is now a stage boat well fitted, kept by William Bandrills, who proposes (wind and weather permitting) to sail from New York to Amboy every Monday and Thursday, and thence by wagon to Burlington, and thence take passage to Philadelphia."

Mr. David T. Valentine, the gentlemanly clerk of the Common Council of New York city, to whom we are indebted for much of the matter in this subject, says that this stage boat was a small sloop, navigated by a man and boy. When the weather was stormy this sloop went by the way of the Kills, (a narrow channel separating Staten Island from the State of New Jersey, by some denominated Staten Island Sound,) and it is said that it took three days to perform the trip to Amboy on some occasions, such was the slow movements of the conveyances of the times. Fifty years afterwards it was not an unfrequent occurrence for vessels to be a week in perfecting a trip of forty-five miles, and the time when a whole day by steamboat was required for the same distance, was twenty years ago. The same distance by land could now be traveled with ease in a wagon in much less time, and by railroad in two hours!

In 1755 the "post goes twice a week between New York and Philadelphia, and arrives in New York at noon on the third day."

But matters improve, for in 1774 we find that the "Flying Machine" (as advertised,) is started in opposition to the slow coach, which it is said carried passengers through to Philadelphia in two days—quite an improvement.

In 1794 we read that "the Diligence leaves the stage office at the City Tavern in Broadway, every morning in the week (Sundays excepted,) at eight o'clock, the stage admitting only seven passengers." The office was kept by John Carr, and the fare to Philadelphia was four dollars. A new line (Industry Line,) left the stage office 49 Courtlandt street, every day in the week, (Saturdays excepted,) at 3 o'clock P. M.; and a mail stage which "leaves Powles' Hook Ferry at 12 o'clock each day, with two horses, traveled all night."

The Amboy stage boats sett off from the Albany pier on Mondays, Wednesdays, Thursdays and Fridays, for South Amboy, where "stage wagons" receive the passengers, and set off at 3 o'clock the next morning. They go alternately to Bordentown and Burlington, from which place they set off for Philadelphia.

In 1813 steamboats went from New York to Albany in from thirty to thirty-six hours, and was pronounced by the public a great achievement.

A traveler who visited Canada in 1817, and has given to the public his journal, says he left New York for Albany "in the Paragon or the Car of Neptune, I forget which, but any of these steamboats of the North river are justly entitled to either of these

proud appellations, since they proceed, not *wind and weather permitting*, like all anterior navigators, but against wind and tide, at the rate of seven or eight miles an hour. And they are not exceeded in one of their dimensions—that of length—by a ship of the line." Our traveler left New York at 5 o'clock and reached Albany at 3 o'clock on the next day afternoon, "one hundred and sixty miles north of the Capitol, which we had quitted twenty-two hours before. The distance I am told has been run down the stream in seventeen hours, formerly an uncertain voyage of three or four days, or a week or two, according to the state of the winds and tides."

But how greatly have the facilities for travel improved during the last forty years, and we now wonder how it could be possible that Dr. Johnson could say that "life had few things better to boast than riding in a post chaise," since distance has become annihilated, and man almost rendered ubiquitous by means of the progress made in the arts and sciences, in our day.

"Dicunt necessitatem esse matrem artium."

WHEN WAS CARRIAGE MAKING FIRST INTRODUCED INTO THE UNITED STATES?

The above is a question which has gained considerable notoriety among the members of our craft, and has been asked through the Magazine. We have received in answer a number of *speculations* upon the subject, but nothing more *direct* than the following, which was sent us from our brother J. D. Sarven, of Columbia, Tennessee. It was originally published in the *Newark Advertiser*, and copied into the *Scientific American*, from which paper the following is copied:

The introduction of carriage making into Newark, New Jersey, says the following from the *Newark Advertiser*, is interesting because it informs us how a very important branch of foreign manufacture was copied successfully, and the same thing can be done with other branches which we have not commenced to manufacture yet, such as fine linen goods, watches, &c. The first vehicles known to have been made here were the old fashioned Windsor Chairs, upon wooden springs, rudely constructed, entirely without ornament, and little better than an ordinary lumber cart, though appropriated to more dignified uses. Sixty years ago no four wheel pleasure carriages were made here so far as is known. Soon after that, however, one Daniel Ross came from New York and commenced coach making, and produced the finest one known to have been made, for the family of Kearney's. It was without any of the carved or ornamental work made now-a-days, but plain and substantial in all its parts. Soon after this experiment, for experiment it was, an English coach was brought into the city by one of the ancient family of Kemble's, having been purchased in Philadelphia, and its appearance excited a good deal of curiosity, particularly that of the venerable Robert B. Canfield, now living at an advanced age, and who but just then commenced business, and whose skill had been confined to vehicles of the most humble pretensions. He took patterns of its several parts, examined minutely its ornaments and such work as was entirely new here, and at once determined to imitate it. Being without the necessary implements to fabricate the finer parts, he set out on foot for New York, and in the evening returned with all the needful tools, with which he soon commenced the work, and soon produced a coach as nearly like the English one as circumstances would then permit. He took it to New York and offered it for sale as his own manufacture. This they utterly refused to credit; a carriage of such skillful workmanship they thought could not have been made in an obscure village. Elizabethtown had produced something of the kind, but Newark was unknown as ever having attempted the production of such work. It was sold, however, and the proceeds formed his first capital of any moment in the prosecution of this now important branch of industry in this city. From this small beginning has grown a business which has given this city as wide spread fame in that particular branch as is Manchester for its cotton manufactories, and Sheffield for its cutlery. From the workshops here have

gone the ponderous English family coach—the diligence of continental Europe, and the light convenient family coach, with which have been supplied the ancient families of the Poinsett's, the Pinkney's, the Pickense's, the Kershaw's, &c., of South Carolina, as well as those of note here and elsewhere. Improvement after improvement has been made, until at this day Newark may challenge any city of our own or any country to a successful competition.

For the Coach-Makers' Magazine.

QUESTIONS WITH ANSWERS.

ON FRICTION.

Why is the friction greater between pieces of the same substance, than between pieces of different substances, with dissimilar grains?

Because, it is supposed, of the roughness, or little projections in the former, mutually fitting each other, as the teeth of similar saws would.

"But for friction," observes Dr. Arnott, "men walking on the ground or pavement, would always be as if walking on ice; and our rivers, that now flow so calmly, would all be frightful torrents."

Why does the friction of various woods against each other vary?

Because of their different degrees of hardness; the soft wood in general giving more resistance than the hard woods; thus, yellow deal affords the greatest, and red teak the least friction. Soft metals also produce greater friction, under similar circumstances, than those which are hard.—G. Rennie.

Why is the friction of surfaces, when first brought into contact, often greater than after their attrition has been continued a certain time?

Because the smoother the surfaces are the less will be the friction, and that process has a tendency to remove those minute asperities and projections on which the friction depends. But this has a limit, and after a certain degree of attrition the friction ceases to decrease.

Why does smearing the surfaces with unctuous matter diminish the friction?

Because it fills up the cavities between the minute projections which produce the friction.

Why has plumbago, or black lead, been substituted for oil in clocks and chronometers?

Because, when mixed with spirit, it readily adheres to the surface of a steel pivot, as well as to the inside of the hole in which it runs, so that the rubbing surfaces are no longer one metal upon another, but plumbago upon plumbago. These surfaces, by their mutual action, speedily acquire a polish inferior only to that of the diamond, and then the retardation of the machine from friction is reduced almost to nothing, and wear and tear from this cause is totally prevented.

Why are jeweled holes injurious to the pivots of watches and chronometers?

Because, sooner or later, however perfect the polish may be, the hard substance of the jewel grinds and cuts the steel pivot, and the metallic particles clog the oil.

Why is a peculiar metal requisite for pivot holes?

Because it must preserve the oil in a fluid state, have little friction with the steel pivot, and be in a degree softer than the pivot, for it is of less consequence that the hole be worn than the pivot. Brass is objectionable, on account of its liability to rust, and gold is too soft for the purpose. Now, an alloy possessing the above requisites has lately been discovered by Mr. Bennett, watchmaker, of Holborn. It consists of pure gold, silver, copper and palladium, and its small expense, compared with that of jewels, is not its least recommendation.

In my next I will have "questions with answers" on "*The Strength of Materials*."

J. E. M.

AN IMPORTANT INVENTION.—A Mortising Machine has lately been invented by T. R. Bailey, of Lockport N. Y., which is so arranged and operates in such a manner that carriage hubs can very rapidly be mortised in a dovetail form, a form which has always been considered as the best calculated for retaining the spokes firmly in a hub.

EDITOR'S TABLE.

NOVEMBER, - - - - - 1856.

OUR NEXT VOLUME.

One issue more will complete the *second* volume of the Coach-Makers' Magazine, and bring us to the threshold of a new year. We flatter ourself to believe, that there is not a single reader of this Magazine that does not feel he has derived some benefit and pleasure from its pages the year past, and we further believe that *each* one of our present subscribers wish us *increased* success in the year now opening before us.

We shall therefore enter upon the duties of the third volume with renewed strength, and with a full determination to render it even *more* attractive and practical in its general tone than the two volumes preceding it.

This Magazine is now as *permanently* established as that of any other Journal in this country, and as it has been universally introduced throughout the United States and Canada, and therefore familiarly known in all parts of the country, we shall entirely dispense with traveling agents to solicit subscriptions to the same. *This* we desire to be *distinctly* understood, that for the next volume *no* agent will be sent out to solicit subscribers as before was done. We therefore request of our numerous friends who intend to subscribe for the next volume to collect what names they conveniently can, and forward their subscription on the receipt of the December No., which will contain blanks for that purpose. By complying with this promptly you will all be sure of the volume complete. Hundreds have been disappointed within the last six months by this neglect; their names came after several No.'s were issued, and in many instances the January and February numbers could not be had, and therefore they were compelled to take the volume broken or not have it all. This, we know to our sorrow, has created much dissatisfaction on the part of those sending late; but it is no fault of ours, and the only way by which it can be remedied in the future, is for them to subscribe at the commencement of a new volume. No publisher is desirous of issuing a journal at random; but in order to go about it understandingly he must first know the probable demand, and then work accordingly. And that is what *we* shall inquire after on the completion of the present volume. Since we have determined to send out no agents to sell the work as before, we shall be governed in the number of thousands issued by the list of subscribers on our books the first of January next. We therefore insist on each individual who wants us to send him the Magazine for another year, to be prompt in complying with the foregoing request.

We decline publishing a regular prospectus, for the reason that the next No. shall be a sample of those which follow it in the *third* volume, and from *that* our friends can judge whether we intend improving and enlarging or not, and will better enable them to decide as to the propriety of giving us their support another year. The size of the pages shall remain the same, but the number *increased*, and the "Drawing Department" shall be enlarged to double its present size.

For further particulars we refer you one and all to the next No., when we hope our "whole army" will give us a nod of *approval*.

BE SYSTEMATIC.

It will add much more to your convenience and comfort through life, than you can imagine. It saves time, saves temper, saves patience, and saves money. For a while it may be a little trouble-

some, but you will soon find it easier to do right than wrong; that it is easier to act by rule than without one.

Be systematic in everything; let it extend to the most minute trifles, it is not beneath you.—Whitfield could not go to sleep at night, if after retiring he remembered that his gloves and riding whip were not in their usual place, where he could lay his hands on them in the dark on any emergency; and such are the men who leave their mark for good on the world's history. It was by his systematic habits from youth to age that Noah Webster was enabled to leave to the world his great dictionary. 'Method was the presiding principle of his life,' writes his biographer.

Systematic men are the only reliable men;—they are the men who comply with their engagements. They are minute men. The man who has nothing to do is the man who does nothing. The man of system is soon known to do all he engages to do; to do it well, and to do it at the time he promised; consequently he has his hands full. When we want any mechanical job done, we go to the man whom we always find busy, and we do not fail to find him the man to do the job promptly, and to the hour.

And more, teach your children to be systematic. Begin with your daughters at five years of age; give them a drawer or two for their clothes; make it a point to go to that drawer any hour of the day and night; and if each article is not properly arranged, give quiet and gentle admonition; if arranged well, give affectionate praise and encouragement. Remember that children as well as grown folks will do more to retain a name than to make one.

As soon as practicable, let your child have a room which shall be its own, and treat that room as you did the drawer; and thus you will plant and cultivate a habit of systematic action, which will bless that child while young, increase the blessing when the child becomes a parent, and extend its pleasurable influences to the close of life. A single unsystematic person in a house is a curse to the family. A wife who has her whole establishment so arranged from cellar to attic, that she knows on any emergency where to go for the required article, is a treasure to any man, (our experience, reader,) while one who never knows where anything is, and when it is by accident found, is almost sure to find it crumpled, soiled, and out of order. Such a wife as this latter is unworthy of the name, and is a living reproach to the mother who bore her.

But it is not alone the *daughter* and the *wife* we would here speak of, but we would particularly have *this* maxim carried into the *shop*. We would have the proprietor more systematic than we generally find him. We would have him teach those under him to be *systematic*; see that the apprentice has a place for every thing about him and that those things are promptly and neatly kept in their respective places when not in use; see that he does not go slovenly about his work, with shavings and dirt up to his knees; (a very shameful practice) and see also that on quitting his bench every evening, all implements are arranged in proper order and his place cleaned up; in short, *teach him to be systematic* in every thing he does, and our word for it he will make a neat workman and a *respectable* man.

A NEW FIRM.—Our old friend Mr. S. J. Mowry of Greenville, Conn., has just formed a co-partnership with Mr. Chas. C. Fuller, for the purpose of carrying on a general Machine making and repairing business; also the manufacture of *Axles* and *Springs*. House, No. 171, Canal street, New York.

Success to the new firm.

THE WINAN'S BUGGY.

We have just received from the factory of Wm. McCann, of Baltimore, a very beautifully finished carriage on the plan of the one patented by Mr. Thos. Winans, as illustrated in the June No. of the Magazine. We have never owned a carriage that operates so perfect in all respects. As to ease of motion, we do not believe there can be anything produced that will equal it. Out of nine vehicles we are now using, we have not one that we so much love to ride in as the "Winans Buggy." In point of *durability* it is certainly *superior* to many constructed in the usual way; there is no joints about it which will ever be subject to rattle. The shafts are connected permanently to the axle, and all the other connections are applied in such a manner as to prove durable and anti-rattling. All who see it, and have the pleasure of riding on its elastic springs, express their approbation in the highest terms of praise. Another very desirable point in this vehicle is that of short turning; no perch being employed, and the body so shaped that the wheel while in the act of turning is not at all limited, and it can be turned as short as a vehicle on two wheels. This is certainly a very desirable advantage, and one not to be attained in any other four wheeled carriage except the "Clarence" or Crane-neck Coach.

There will be a number of these vehicles ordered from our city as soon as Mr. Winans can receive the orders. We trust his arrangements will soon be perfected, so that he can accommodate our friends with the vehicle complete. Owing to the heavy contract Mr. W. has effected with the Government of Russia, to build the Railroad from St. Petersburg to Moscow, he has doubtless been so much occupied as not to permit of his giving that attention to the buggy project he has intended or desired to do; but we hope ere long he will be enabled to bestow some of his time to matters in the carriage department at home; while the Russians are riding on the rail, which he is now spikeing to the earth for them.

LANE & BODLEY.

These gentlemen, as will be seen from their advertisement in this Magazine, are very extensively engaged in the manufacture of "Hub Boring & Mortising Machines." We notice also from a circular by them issued some time in September last, that they are making a very fine article of Tenon Machines, Planing Machines, and in short all kinds of machinery used in the carriage department. We have quite a number of complimentary letters from different carriage makers and those manufacturing hubs, &c., respecting the machines from this factory. Every person wishing to purchase a perfect machine for the execution of any work in the carriage line, will do themselves an injustice not to patronize Messrs. Lane & Bodley, of Cincinnati, Ohio.

JAS. DELWORTH & CO., PITTSBURG, PA.—Some months since we had occasion to speak of the Pittsburgh Springs and Axles, and introduced our readers to the gentlemen above named, as the pioneers in the manufacture of *prime Pittsburgh Springs and Axles*. The Springs and Axles formerly produced in this city were of such a character that the very term "Pittsburgh" has become a by-word among carriage-makers so common, that all bogus stock has been called by that name. But we are happy to see that good is coming out of the Spring and Axle department even in Sodom.

But a few days ago we called on our worthy friends, Messrs D. & Co., and in justice to them we must say we never inspected a lot of springs more neatly finished or of better proportion than those which they are now manufacturing. Their axle arrangements they have not quite completed. We take pleasure in now recommending the Pittsburgh Spring as manufactured by Jas. Dilworth & Co.

A BEAUTIFUL HEARSE,

BY OUR OLD FRIEND MR. ROGERS, OF PHILA.

We are happy to notice in various of our Philadelphia exchanges, that our good Bro. Rogers has achieved another triumph in the shape of a "carriage for the dead."

This hearse, which was made to the order of some stiff firm in St. Louis, is said to be the most magnificent piece of workmanship ever executed in the Quaker City. However, we are not surprised at this intelligence, knowing as we do, the character of Mr. Rogers and his *men* as practical and thorough bred "COACH MAKERS."

The editor of the *Daily Evening Bulletin*, (Phila.) in speaking of this magnificent piece of workmanship, says:

"We yesterday paid a visit to the extensive coach and light carriage factory of Mr. Wm. D. Rogers, at the north-west corner of Sixth and Master streets, for the purpose of inspecting a magnificent hearse that has just been finished for an undertaking firm at St. Louis. We found hundreds of visitors at the factory, who were upon the same errand as ourselves, the fame of the hearse having spread far and wide. This carriage for the dead is so different from the vehicles used in our own city for a similar purpose, that a description of it will perhaps gratify our readers. The body of the hearse, which is painted black, is hung upon five springs. It is enclosed by ten pannels of heavy French plate glass, highly ornamented in gold and silver, in the Gothic style. The roof is supported by eight silver columns, the bases of which are richly wrought in gold, while the tops projecting above the roof represent eight golden vessels, from which issue silver flames. Gothic arches, worked in gold and silver, span the pannels and extend round the roof, and below the pannels are eight silver mouldings, studded with gold rosettes.

The whole is surmounted with gilt crosses, and eight splendid white ostrich plumes, the latter being each three feet in height. The crosses and the plumes can be taken off at pleasure, and in the event of the use of the hearse at the funeral of adults, black plumes can be substituted for the white ones at present displayed. The rich white hammer cloth is also arranged so that black may be substituted as occasion may require. Elegantly wrought lamps are placed upon each side of the driver's seat. The hearse, as a whole, is the most gorgeous thing of the kind we have ever seen, and the workmanship upon it is as excellent as the vehicle and its appointments are showy. It is designed to be drawn by four horses; the harness for them, from the establishment of Lacy & Phillips, is also exhibited at the factory of Mr. Rogers. It is beautiful in point of workmanship, and the mountings upon it comport with the embellishments of the hearse. This splendid turn-out was made to order for Messrs. Lynch, Arnot & Co., St. Louis, and Philadelphia may feel proud of having such specimens of the handiwork of her mechanics to go abroad. This hearse has been the work of ten months, and its cost is \$3,500.

Mr. Rogers manufactures work for all parts of the South and West, and a considerable portion of the coaches and light carriages gotten up by him are sent to the West Indies. His vehicles are even sent occasionally to Paris and London, and to other European capitals. All the work turned out by him is of the finest description, and it is all made to order. This factory is four stories in height, and extends from 6th street to Marshall, a distance of 175 feet. More than one hundred hands are employed directly upon the premises.

NOBLE G. BRUCE & CO.

These enterprising gentlemen are very extensive dealers in all kinds of carriage and saddlery hardware and trimmings, in Memphis, Tennessee. They are likewise largely engaged in the manufacture of carriages of every description. We are informed by a friend of ours, who has just returned from the South, that these men have just completed one of the largest houses in the State of Tennessee, and which shall be wholly devoted to the hardware and trimming business. From this it would seem they are determined to do something. We most heartily wish them success.

THE OHIO STATE FAIR, &C.

We spent one week in our neighboring city (Cleveland) during the State Fair. The Agricultural Department was, we think, better represented than at any of the previous exhibitions. But the Mechanical Department was not as interesting as we had hoped to see it, nor hardly as full as at the last fair. But on the whole, it was very respectable. The display of carriages was quite limited, but the few that were on exhibition, bore upon their general appearance the mark of skill and scientific workmanship. One in particular, which was from the factory of Messrs. Clark & Bro., Ravenna, Ohio. It was a kind of close rockaway, with extension rocker and driver's seat outside. The painting on this carriage, especially the ornamenting, far surpassed any piece of coach painting we have ever seen this side the waters. And the trimming, (which was executed by the editor of our Trimming Department,) is certainly a piece of work which in point of taste, and a neat and perfect execution of workmanship, will compare favorably with the best and most elaborate trimming ever applied to a carriage. While in the city we frequently called in at that very popular house among carriage makers, Messrs. John Tennis & Co., and where we made the acquaintance of quite a number of the craft who had come there from all parts of the West, to purchase trimmings, &c. Mr. Tennis and his very interesting partner seem not "weary in well doing," and from the present appearance of things, we should judge they were selling as many goods to Western and Canadian carriage makers as any other house in the Union.

We copy the following from one of our city papers, (the *Daily Capital City Fact*), of the 14th September:

ANOTHER VALUABLE IMPROVEMENT IN CARRIAGES.—Mr. Saladee, of the "Coach Maker's Magazine," seems not content with the victory and success which he has already achieved in his "Three Wheeled Equirota Phæton"—referred to some days ago—but we find him again taxing his *inventive* genius in the carriage department to a still *greater* extent, which has resulted in bringing out an improvement for adjusting carriage tops, which, for durability, convenience and simplicity far surpasses anything of the kind ever before known or thought of. Letters patent for this useful invention were granted to him on the 9th inst.

The object of this improvement is, to throw *back* or *raise up* the top at any instant, while seated in the carriage, which can be accomplished with one hand and with the greatest possible ease. Tops of carriages must necessarily extend well forward in order to shield its occupant from the sun or rain, and when erect, it is difficult to enter; nor can this be obviated, unless the top is thrown back; which, in the old way of adjusting tops, would require more time and trouble in ingress and egress than patience would permit. We have several times observed in one of the carriages used by Mr. Saladee, that when he stops in front of his office, or elsewhere, by a light pressure of his left hand on a lateral rod at the back of the seat, the top is instantly thrown back, where it remains until he again takes his seat, when it is raised in the same manner.

This is a convenience in "Calash topped Carriages" which no one, (after seeing it operate) will deprive themselves of for almost any price. It can be applied to any top now in use, at a cost of from \$3 00 to \$5 00.

Our physicians, especially, will know how to appreciate this improvement.

It is said by one of our exchanges that a young blood (a wheel-wright by trade) in Suckerdom, wishing to get a chance to tell one of the fair ones what he thought of her, donned his best looks, and addressed her in this wise: "Miss, can I have the exquisite pleasure of rolling the wheel of conversation around the axletree of your understanding a few minutes this evening?"

If you would render your calling honorable, disgrace it by no ungentlemanly act.

HOOPS AND THEIR CONSEQUENCES.—The propensity of the ladies to make barrels of themselves, has induced numerous editorial comments, running

"From lively to severe."

Savoring of the former but not destituted of a vein of the latter quality, is the "yarn" of the *American Budget*, whose editor tells of an accommodating young beau, in Havana, who recently called to "take a young lady out for a sleigh ride. When the lady was seated, the young man discovered that his fair companion with her *surrounding appurtenances* entirely filled the cutter, and not being willing to go afoot himself, he gallantly mounted the nag, and both parties rode on their way rejoicing.

More recently (says this truth loving editor) a lady was walking along South Street, Havana, when one of the hoops, the ends of which had not been strongly secured together, suddenly broke loose, and flying back with great force, tore completely through the outer garments and struck a small boy who was standing on the side walk about twenty feet from the lady. The small boy was taken home senseless, and and it is feared will not recover.—The hoop is already re-covered."

TRUTH IS STRANGER THAN FICTION.

A widow lady advanced in life, now a resident of the city of Philadelphia, can tell with truth the following story, showing what strange coincidences the current of events will sometimes bring to light. The lady owns real estate in Michigan, and the following facts were given to us by her attorney, who learned them from her own lips. This lady was born and brought up in the State of New Jersey, and upon being married removed to Michigan, and settled in the county of Monroe. There her husband built a house, improved land, and they struggled on together, as many a young couple has done, before and since. Upon that farm this lady buried her first-born child, and a few years after, her husband died, and was buried there. After his death she sold out everything, and removed with her two sons back to New Jersey, where one of her sons died from the effects of a fall received on the passage across Lake Erie, in the way home. The other son removed to Philadelphia with his mother, acquired property, and seeking to increase it went to California in 1853. While there, designing to return home, he exchanged property in Marysville, with a man who owned property in Michigan, for a farm, of which he took a deed without knowing the situation or character of the property. While preparing to return to Philadelphia, he was taken sick and died, leaving his mother sole heir. The deed of this property in Michigan came into her hands, and after a time she made a journey to visit it. Upon reaching the place, she found it to be the very homestead which she and her husband had built more than thirty years before, and found in the wainscot, her own initials, cut by herself, years before. She now is again the possessor of her early homestead, the graves of husband and eldest child.—*Detroit Advertiser*.

A GOOD TEST.—A bear who was taking his lesson in dancing, and believing that he could not fail to be admired, paused on his hind legs to ask an ape how he liked his dancing. "To say the truth, friend, you dance very badly; you are too heavy." "But surely I do not want grace; and what you call heaviness, may it not be dignity of carriage?"—and Bruin recommenced his practice with somewhat of an offended air. "Bravo!" cried an ass who now passed by, such light and graceful dancing I have never seen; it is perfection."—But this unqualified praise was too much for even the self-love of the bear, and startled by it into modesty, he said within himself: "While the ape only censured, I doubted, but now that the ass praises me, I am sure I must dance horribly."—Friends, suffer a word of advice: when good taste censures, hesitate, doubt; when folly applauds be certain you are all in the wrong.

VULCANITE.—Mr. C. Goodyear, has discovered an article to which he has given the name of *vulcanite*, which it is reported answers a good purpose in protecting iron, carriage and harness mountings, &c., from rust. This article of our fellow countryman has been very favorably spoken of in Europe.

TRIMMING DEPARTMENT.

M. G. TOUSLEY, OF OHIO, EDITOR.

DRAFTING.

It must be borne in mind that all designs which look well as a picture, are not proper for stitching. The drafts given in the last No. are made with strict reference to their appearance when enlarged and stitched, and are not ornamented with shading to please the eye and tickle the fancy. Designed only for practical application as patterns, they are presented in naked outline.

We lay no claim to perfection or to anything higher than ordinary endowments and experience. Our efforts are presented, subject to criticism and amendment, and we sincerely hope that those who are in the habit of drafting will send in their own productions without waiting to grumble and find fault with what has already been presented.

Our brethren of the craft will of course take it into consideration that it is a much easier task for a practical workman to draft designs of a size and proportion fit for use than it is to sketch them on a scale suitable to be engraved. Also, that a design is made or unmade by its adaptation to the place which it is made to fill and the style of work that surrounds it. In our own experience we find but little use for a pattern the second time; and in making new ones the shape of the part and the tone of the finish that surrounds it, generally suggests the style of the figure to be drafted. Thus we obtain a partial idea of what is wanted, and the task of designing is robbed of half its perplexities. But to sit down by one's stand, and in cold blood attempt to conjure from the imagination certain designs wherewith to people the blank sheet spread out before us, is an unenviable task. The designs look inferior drafted on a small scale, and if filled so as to look right when enlarged, it seems too close on account of the largeness of the pencil mark; and then to think that each must run the gauntlet of a thousand copyists who perhaps may, and perhaps may not succeed in rendering it in style or application, worthy of the conceptions of its originator.

The standard of design in ornamental work needs elevating. There is too little attention paid to this matter. We have taken pains to examine work manufactured in all portions of the Union, and in almost every case the same defect is strikingly apparent. One runs a crooked mark for a vine and fills with leaves, flowers, scrolls and flourishes, thinking, no doubt, that if the "wied sisters" could concoct a charm from "Eye of Newt, Toe of Frog, Wing of Bat and Tongue of Dog," that the effect of this strange companionship would also be in some degree magic. Others draft a jungle of curves and sweeps with no apparent intention but to coil a vast amount of stitching into a small compass, as though their highest ambition was to display their skill as a sticher; while others, an honorable few seem to understand that the stitching is for the design rather than the reverse. But it is no way surprising that this last number is so small, when we take into consideration that in many cities and towns German stichers with no knowledge of the business, are allowed to become their own designers, and that in the dearth of competent draughtsmen within the fraternity. Painters are often called in to assist in making patterns; those drafts are of course made to be finished with shading, as they are not only ignorant of what can or cannot be stitched to advantage, but, as a general thing, are profoundly ignorant of the proper attitude of outline drafts. All these considerations combine to render it doubly important that the fraternity of trimmers fall back upon their own resources, and strive to elevate within their own ranks the true standard of design and application:

TOP IRONING—A Correction.—In the haste of making up a department at the eleventh hour, we made a ludicrous mistake in our article under the above head in the Sept. issue. In giving the rule for obtaining the position of the joint in the back iron, we gave the first measurement upon the bow to be deducted from the lower end of the joint measure, in the place of the second one, which would have been correct. Now, to save confusion, we will give the rule over again, correcting our error.

Rule for a Top ironed from back to front.—Deduct the length from pivot iron to back prop, from the back bow, measuring from the pivot up; then measure from thence to the top prop. Deduct this second measure from the lower part of the back iron, and then divide the distance from thence to the upper end. To impress this

more fully, we will state the "why's and wherefore's." When the top lays down of course the back bow will strike the iron at the terminus of the first measurement; the second carries it from the back iron to the prop; then it takes the half of the remainder to bring the end back to the same spot. This is the same as string measure.

In taking the measure of the horizontal iron if by any chance of the prop iron on the back bow should be just the same from the pivot as the front one, the joint must be in the centre of the iron, for when the top is down, the props will lay together, and of course it takes one-half of the iron to reach out and the other half to bring it back; but if the front is an inch the highest, that inch or whatever the amount over may be, must be added to the back end of the iron; for when the top lays down the front bow will reach back an inch farther than the back, which cuts off an inch from the distance which the front end of the iron must double back to meet it.

For tops ironed in the old fashioned way, that is, from back iron to back middle bow, the same rule and philosophy will apply, except, that inasmuch as the bow when thrown back lays some higher than the back bow, either the joint will stick up, or else an extra length must be added to the top end to carry it from the level of the back iron up to the bow. The whole amounts to the same as string measure, and as we stated, the rule cannot fail to work with the same result, no matter how different the proportion of the parts to which it is applied, for the equalizing of those differences is the first office it performs. We would still reiterate that no top either need or should be fell until the irons are all fitted, blacked, and put on to stay; then, and then only, should the slats be removed.

The string measure is at best but a bungling and unscientific way of doing business; it might have done a few years ago, but now, in this nineteenth century, this age of coach-making, any coach-maker should be ashamed to be caught in the act of ripping off slats and fussing with strings to get the location of a joint.

SHRINKAGE OF CLOTHS.—Many tops are utterly ruined while yet new, by the shrinkage of linings, especially when lined with high colored broad cloths such as blue, claret and green. The cause of this shrinking worse than drab, probably is, that they are generally lighter fabrics, for both are "cottoned" enough in all conscience. But be the cause what it may, facts are stubborn, as too many carriage-makers have found to their sorrow. They do shrink and carriage tops are spoiled in consequence. To prevent this, many are in the habit of sponging light bodied cloths; in fact some first class shops never use a yard of fancy color in linings, without putting it in wet blankets, or sponging thoroughly. But after admitting all this, the question arises, is not the "remedy about as bad as the disease?" It is a known and admitted fact, that a deep, rich lustre has more to do with the beauty of cloths than any other one thing; also, that this wetting and shrinking operation destroys the lustre and makes it appear wrinkled and mussed. We will give our experience which each can compare with his own and act accordingly.

We always throw an extra fullness into curtains, and headlinings we run over rather than across the top so as to have the cloth whole; at the same time we put it in slack. When worked in this manner, the cloth retains all of its beauty and finish, and in our own experience we have never known it to fail of doing good service. We consider the shrinking operation an unnecessarily harsh remedy. Cloth in a top seldom gets as wet as it is when sponged or folded for shrinking, and if it should, it will not shrink as much, for cloth when thrown loosely down to dry will shrink a great deal, whereas, if it is held firmly at each edge, it might be wet and dry a dozen times without either shrinking as much or in any manner injuring the cloth. Hence we believe the precaution above alluded to is a full and judicious remedy, and the only one that should be used.

A TAPE MEASURE is an article that should be on every trimmer's bench; they are the most reliable to take distances with, as they are long enough to take any ordinary measure at one length, and their material is such that they never stretch in measuring any distance, and then to find centres by doubling they are both handy and reliable. No one knows their convenience who has not accustomed himself to their use.

WHAT COURSE SHALL WE PURSUE.—It is shrewdly remarked by a modern writer, that "when all men look alike they may also think alike." With this before our minds we shall endeavor to

make all due allowance for differences of opinion in regard to the course chosen by us in the conducting of this department. Some will no doubt think that we enter into unnecessary details; others that we are not sufficiently explicit. The first we shall disregard; the other we shall strive to obviate. "The sick, not the well, need a physician;" and in assuming the editorial duties of this department, we feel it to be our duty to do good where it is most needed, and to treat all classes alike who invest their money for the interests of the Magazine. The lowly operative who supports his home circle from the fruits of his daily toil, tho' he may never have traveled abroad to feast his eyes with the gas-light splendors of the metropolis, has even a greater claim upon our attention, than the man of loftier intellect and professions.

The coach trimming interests may well be termed "A FRATERNITY." It is, as a general thing, composed of men endowed with generous feelings and kindly impulses; but we cannot expect it to be entirely free from hunkers and bigots. There are men of course within its limits who would, had they the power, seal up the fountain of knowledge, and crush all improvement beneath the Jugger-naut of their own selfish interests. Such will no doubt cry out that the craft is in danger. It is for the interests of such to cut the fraternity into "upper crusts" and "under crusts," placing themselves of course where neither nature nor education could ever place them—at the "top of the heap;" and all that by Simon-pure impudence and assumption. We have no desire to become the tool of that class. We will neither pander to nor build up an aristocracy of trimmers, by boosting the exalted and riding over the lowly. Our arithmetic gives no rule for determining the orthodoxy of a trimmer. Neither can we conceive what precise number of facts one trimmer must know more than another in order to entitle him to "caste." Since we have no tests we are obliged to either adopt the plurality rule and its Ishmael tendencies, or fall back upon the broad platform of equality. We prefer the latter. Hence we shall cast aside all obscure technicalities, accompany cuts with full explanations and endeavor to throw whatever is valuable before the fraternity in the most brief and simple way.

We are aware that many are glad to have access to the Magazine with its recurring store of useful hints themselves, yet have a delicate fear that apprentices and those unskilled in the art will through it obtain a knowledge of the business. Never fear, timid one, a thousand theorists would not make one good mechanic. True, theory must precede practice; but still the educating of the muscle and the involuntary perceptions is really the learning of a trade. An apprentice can learn in one day the theory of more than he can properly accomplish in one year. The theory of stitching, for instance, is simple, yet many never become good stichers. Many can detect the least error in any part of a carriage or coach, who could not perform the hand craft of either branch. Hence this scruple is both weak and ridiculous. Were we to give drafts of complete styles in a finished state, with no remarks, except a voucher for its being the latest "*kink*" just sent from the "man-in-the-moon," so that none but those who were "posted" would take the hint, it would tend to making botches of good workmen, by inducing them to counterfeit appearances with no proper knowledge of its ground work.

With regard to that class of workmen who are denominated "*Rats*," we are convinced that they are such generally from compulsion rather than choice. If so, by pursuing an illiberal course we drive them farther into the same channel. Better curtail the taking in of so many raw apprentices, than to wage an eternal yet hopeless warfare against that unfortunate class who are forced by circumstances to remain and drag out a miserable existence upon a scanty pittance, yet within the pale of the craft, and when humanity, justice, and reason pleads in vain, the voice of interest, true to the instincts of the age, should prompt us to adopt a different course. The true mechanic need never fear exhausting his store of knowledge, for invention, upon her lightning wing hovers over the workshop and the study room, ever ready to fan into new life the expiring embers of genius. The comparing and explaining of two things suggests a third; thus the fountain never diminishes.

We trust that the course which we have taken will meet the hearty approval of at least nine-tenths of the fraternity, and the remainder will be forced to cling to the car of progress or plod at their own snail's pace in the rear.

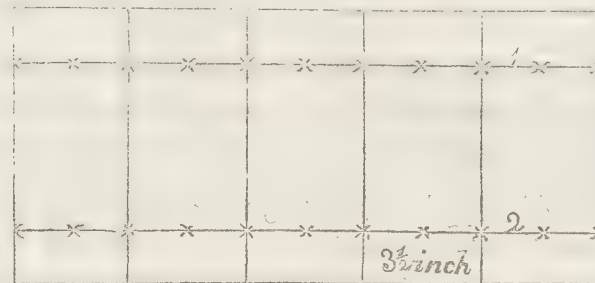
The Fashion Plate system we regard as both tyrannical and

wrong; hence we are bound to respect local tastes and adaptation, allowing each the largest liberty in a fair field, to exercise their respective talents.

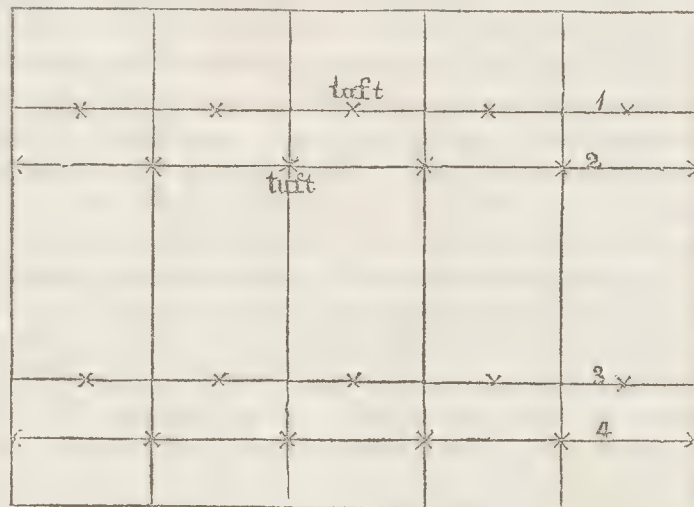
The Snake Roll Back.



This style of back is of simple construction, yet rather scientific and very durable. The body is laid off in this manner:

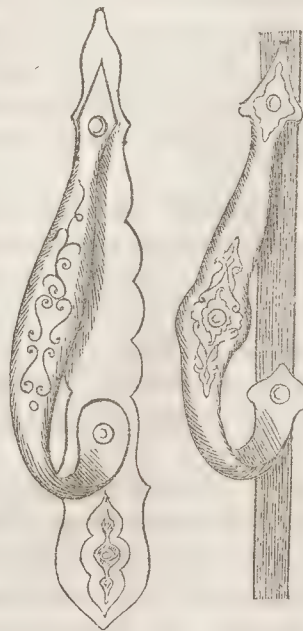


The fabric is laid off in two lines, thus:



These tufts together and properly stuffed, will make the style of back which the first cut is intended to represent. With regard to fullness, the judgment of every experienced trimmer will be a sufficient guide except in the wand roll; that must be from $1\frac{1}{2}$ to 2 inches. The horizontal body lines are from $3\frac{1}{4}$ to $3\frac{3}{4}$ inches apart, and dotted between as represented in the draft. About a half inch fullness is allowed for the outside. This back is best when made of stiff material, such as leather, canvas or plush; cloth looks full as well in the old fashioned snake roll made with body laid off double to correspond with the outside, but will answer this way for a change.

One must be modest in claiming originality in this fast age, but we think that this method of making a snake roll on a single body line will at least have the merit of being new to the craft generally.



A NEW PATTERN FOR A LIGHT HOLDER.—This style of Holder is adapted to light roll-up and "Gipsy tops." The drop piece is pasted on bow leather, stitched, trimmed, and the edge varnished. The bottom is inlaid and the inlay ornamented with a silver drop ornament. The outside piece is covered with bow leather, stitched; lined with the same as inlay, and then bound with the cover. It is then nailed or screwed through the drop piece to the bow.

A NEW DESIGN FOR A BAROUCHE CARPET.



The outside frame of this combined rug and carpet is oil carpet bound outside and inside with leather baisted and turned, then creased and stitched—the inside through the tapestry with which it is inlaid.

The design of the scallops at each edge is to correspond with the ruffle of the falls which are plaited, but left flowing at the bottom. A little curled hair dropped under the rug will improve its appearance. The same design will apply to other carpet, by omitting the front scallop.

Dash Corners unavoidably crowded out—will appear in next No.

Editorial Chip Basket.

BY E. M. S.

This fellow picks up chips, as pigeons peas.—SHAKESPEARE IMPROVED.

EXHIBITION OF CARRIAGES AT THE NEW JERSEY ANNUAL STATE AGRICULTURAL FAIR.—Among other things in this Exhibition at Newark, in September, was a small number of carriages, but these appear to have been of the very best quality. We are very much gratified to find such good evidences of the taste and workmanship displayed by the American Coach-makers, as was done at this fair; it is worthy of commendation. We are further gratified by the fact, that no Exhibition is now considered complete unless it is graced with the beautiful and ingenious productions of our fellow craftsmen.

Mr. H. W. Miller, of Patterson, furnished for this Fair a skeleton Phaeton of beautiful design and workmanship; it was very much admired. Messrs. Wm. Wright & Co., of Newark, exhibited some fine specimens of carriage springs of their own manufacture, from English steel. Mr. Grant exhibited his patent Murgatroyd combination of springs and braces, of considerable merit; and Mr. McFarland some fine specimens of harness; upon the whole—although the quantity was small—apparent deficiency was amply supplied in the quality of the carriages, &c., exhibited.

DESTRUCTION OF A CARRIAGE REPOSITORY.—The extensive Carriage Repository of Mr. Geo. Bailey (who we believe resides in Bridgeport, Conn.) at St. Louis, Mo., was destroyed by fire on the 21st Sept. Mr. Bailey had on hand and in store a large and valuable collection of Carriages, Rockaways, Buggies, &c., none of which could be saved—so rapidly did the flames spread through the establishment—on account of the light and inflammable nature of the materials. Loss estimated at \$15,000—insured for \$5,000.

CITY RAIL-CAR-OMNIBUS.—We more than suspect that we shall be called upon in a few months to add a supplementary chapter to our former one in this volume, on omnibusses, under our present heading, and to which this article is but introductory. In company with a brother craftsman, we the other evening found ourselves seated in a new kind of car on the Sixth Av. R. R. on our way to the 'Palace.' We are accustomed to use caution before we jump into any vehicle, but such was the darkness in the street—that although we thought the wheels rather high—after we were seated in the car we found it very difficult to convince our senses that we were not in a "buss," as the interior arrangements presented the exact ap-

pearance of one in its construction; carrying twelve, the like number of passengers. Under the driver's seat we read, "Passengers will please pay on entering the car," and under a clock-like contrivance, the bell (we suppose) "should ring and mark one for every passenger." Soon a hand was invitingly presented by the driver through the place at which all omnibus fares are collected in New York, and when the fare was paid—such a striking within the clock!—one! two!! three!!! four!!!! One thing we noticed particularly; we heard no striking until the fare was received as we presume every stroke is 5d to the owners of these cars, and the notices around the 'passenger register' would seem to lay every passenger under obligations to see that the bell is properly sounded. We think that every candidate for driving these 'consarns' must be naturally honest, for there is not the smallest chance for 'knocking down,' and if the driver does not possess some caution, *he may 'knock' something out of his own pocket*, as this 'Register' speaks in a language denied to dead men; for as a waggish passenger observed—*they carry no 'dead-heads' here*. These cars are an improvement on the score of economy, over the old rail-car, as they are run with a single horse and the services of a conductor are dispensed with altogether.

CARRIAGE WHEELS PAINTED BY MACHINERY!—We were prepared for almost any thing in this age of inventions, but we are obliged to admit that a worthy Yankee inventor has produced a machine for performing labor which we had never anticipated. Only think of it; wheels are now painted by dipping, just as candles are made! No more blue Mondays for the "knights of the brush"! No more "kicking the boss" for two dollars a day! No-sir-ee, Othello's occupation's gone, and paint brushes are a bore! Mr. S. B. Fuller, of Worthington, Mass., is the man "what has done it;" hear him.—"I claim the vibrating and rotating shaft, C, passing into the tub B, and arranged and operated as shown in an equivalent way, for purposes specified." This description is "as clear as mud," but in explanation we would tell our kind readers, that a tub is prepared to hold the color or paint, with a vibrating and rotating spindle fixed in the bottom of the tub of paint, on which a wheel is placed, one at a time, and is immersed in the paint by a depression of the spindle. After being raised out of the paint, the wheel is whirled around so that by a centrifugal force the superfluous paint is thrown off! We are told that five men can perform the labor of one, and brushes are of no use.

IMPROVEMENTS IN OMNIBUSSES.—We are pleased to find that the improvements noticed in the account of our visit to the Crystal Palace, last year, [page 3, present Vol.] have been patented by our friend Mr. D. O. Macomber, of No. 10 Wall Street, N. Y. City. We hope to have the honor of illustrating these improvements in a future No. of the Magazine.


TRAVELING IN FLORENCE.—A recent traveler represents the roads in Florence as being very good—the very best Macadamized; the horses strong and easily kept, and that a cosy pair of ponies can be purchased for less than a three-minute-trotter can be got in New York.


THE WHINEINGS OF AN ENGLISH HOSTLER.—We run foul of a genuine specimen of a John Bull hostler the other day, who was evidently dissatisfied with everything American. Our carriages hung too low—our front seats were not high enough to be convenient—"O," said he, "give me a carriage with the front seat high enough, so that I can see where I am going when driving. They would laugh at home, to see two hands up with the lines, (suited the action to the words) as I do here. O give me home!" *Hinc illic lachrymæ.*

DETATCHING HORSES FROM VEHICLES.—We are completely disgusted at finding every week in our cotemporary publications so many details of 'love's labor lost' on contrivances for letting a horse slip out of the shafts of a vehicle when he is running away with it. It has been shown over and over again, that all such contrivances but increase the danger to which the passenger is subjected, and which we wish to obviate. This we think has been sufficiently demonstrated in these pages by our worthy co-laborer. Mr. Geo. H. Gray, Sen., of Clinton, Miss., and others "too tedious to mention" has by his ninety-ninth contrivance for the same purposes called out the above remarks. We hope that in future some genius' will set his brains to work, at finding a preventive to horses getting 'skeered' and running away at all; that *might* prove beneficial, to all but our 'fast men'—they of course are excepted.

THE REPRESENTATIVE STATE COACHES OF ENGLAND AND FRANCE AT THE RUSSIAN CORONATION.—The equipages of Viscount Granville, the British representative at the late coronation of Alexander II is said to have consisted of five carriages and above twenty horses. The state coach of the Viscount was constructed by one of the best London coach-makers in about five weeks! An English paper says, "it is of a royal blue, pricked out with crimson, orange and light blue; all the mountings being silver. The hammercloth is of white cloth, ornamented with white and blue gimp and fringe, tastefully designed, on which is a crimson velvet banner, displaying the family arms of the Viscount in white silver. The linings and cushions of the interior are of a rich white watered silk. On the door panels and in front and back of the coach the arms of his Excellency are fully emblazoned, the side panels bearing the family crest." The other four carriages were elegant but less gorgeous, and intended for the uses of his attendant retinue.

The representative of France, the Count de Morny, appears to have received, even more attention than his rival from England. His 'turn out,' although of an antiquated appearance, presented a show which "took all others down"—such a gorgeous hammercloth—such finely executed armorial bearings—such beautiful lamps, two in front and two behind the coach-body, each surmounted with a crown, and the crowning crown of all dazzled on the top of the roof, a distinguished emblem of the "bauble" which is said to bring uneasiness to the head of its wearers. Louis Napoleon is evidently 'bound to shine,' and although the late Autocrat was reluctant in admitting him into the family of crowned heads, yet he is determined to convince the son that he is somebody, if pomp and show can do it. *Vive la Humbug!*

 We are in the constant receipt of letters from our country friends, requesting us to send them workmen for different branches in the trade—of this we do not wish to complain—but we wish it understood that *your* letters and *our* answer thereto takes five cents out of our purse. If you desire our attention, to such 'favors' is it more than due to us, that you enclose two stamps with your requests, where the benefits received are all onesided, and—that *benefit your own?*

 "Porter's Spirit."—We have received several numbers of a new Journal called *Porter's Spirit of the Times*, edited by Mr. Wm. T. Porter, of the old 'Spirit' in which as usual, he shows himself at home in catering for the amusement and instruction of his readers. With a galaxy of contributors rarely to be found, we learn that in the first week of its publication it reached the unprecedented circulation of 30,000. Published weekly at \$3 a year at 348 Broadway, New York.

STRATTON'S PATENT MAIL AXLE.—We would inform our friends that this deservedly favorite axle is manufactured by the Tomlinson Spring and Axle Co., in Bridgeport, Conn., who give punctual attention to all orders and get them up in a superior manner. Those who have read our June No., need not be told that this is THE axle best accommodated to small hubs. In boring for the bolts, the spoon bit pieced out should be used, and not a twist auger, as half the hole being in the box, renders a twisted bit unsuited for the work. The public is respectfully informed that this is *the only* establishment authorized to make these axles at present.

THE SUNLIGHT ON THE PINES.

The sun is saying his farewell—
The pure sky glows with gold,
And purple clouds bedeck the sky
In many a graceful fold;
The distant mountains smile in peace,
As queenly day declines—
But more than all these charms, I love
The sunlight on the pines.

O! Evening, thou hast beauties rare—
The softened glow of day,
Along the landscape fades and fades
Until it dies away.
And, then, the moon in silvery dress
Along the Orient shines—
But better, far, I love the light,
The sunlight on the pines.

There's loveliness and grandeur vast
In midnight's ebon sky,
When not a single ray of light
Illumes the void on high.
When not a single star beam sheds
Its light in cheering lines—
But, ah! I love thee, better, far,
Sweet sunlight on the pines.

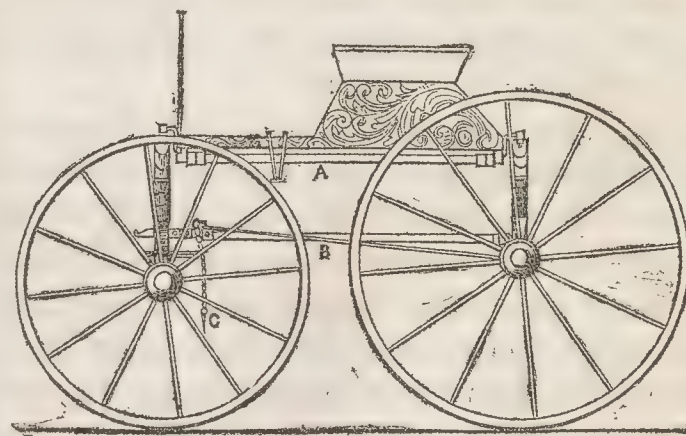
The evergreen so dark and stern
The fiercest storm defies,
And lifts its head in majesty
Up to the flaming skies.
But when the radiant sunshine rests
In rosy, golded lines,
Amid its branches green, I love
The sunlight on the pines.

CLARA AUGUSTA.

Contributors to this Number,

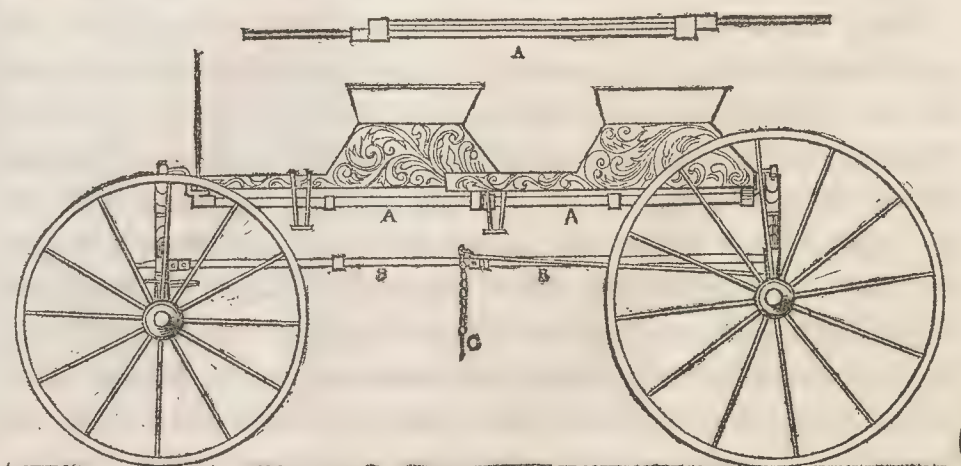
"JERSEY BOX PHÆTON,"	- - -	W. J. Thomas, N. J.
"LIGHT FOUR PASSENGER ROCKAWAY,"	- - -	"
"QUESTIONS WITH ANSWERS,"	- - -	J. M. Manley, of Conn.
"INTRODUCTION OF CARRIAGES INTO THE UNITED STATES,"	- - -	J. D. Sarven, of Tenn.
"SKETCHES OF EARLY TRAVELING IN AMERICA,"	- - -	E. M. Stratton, N. Y.

ROSENCRANTZ'S EXTENSION WAGON.

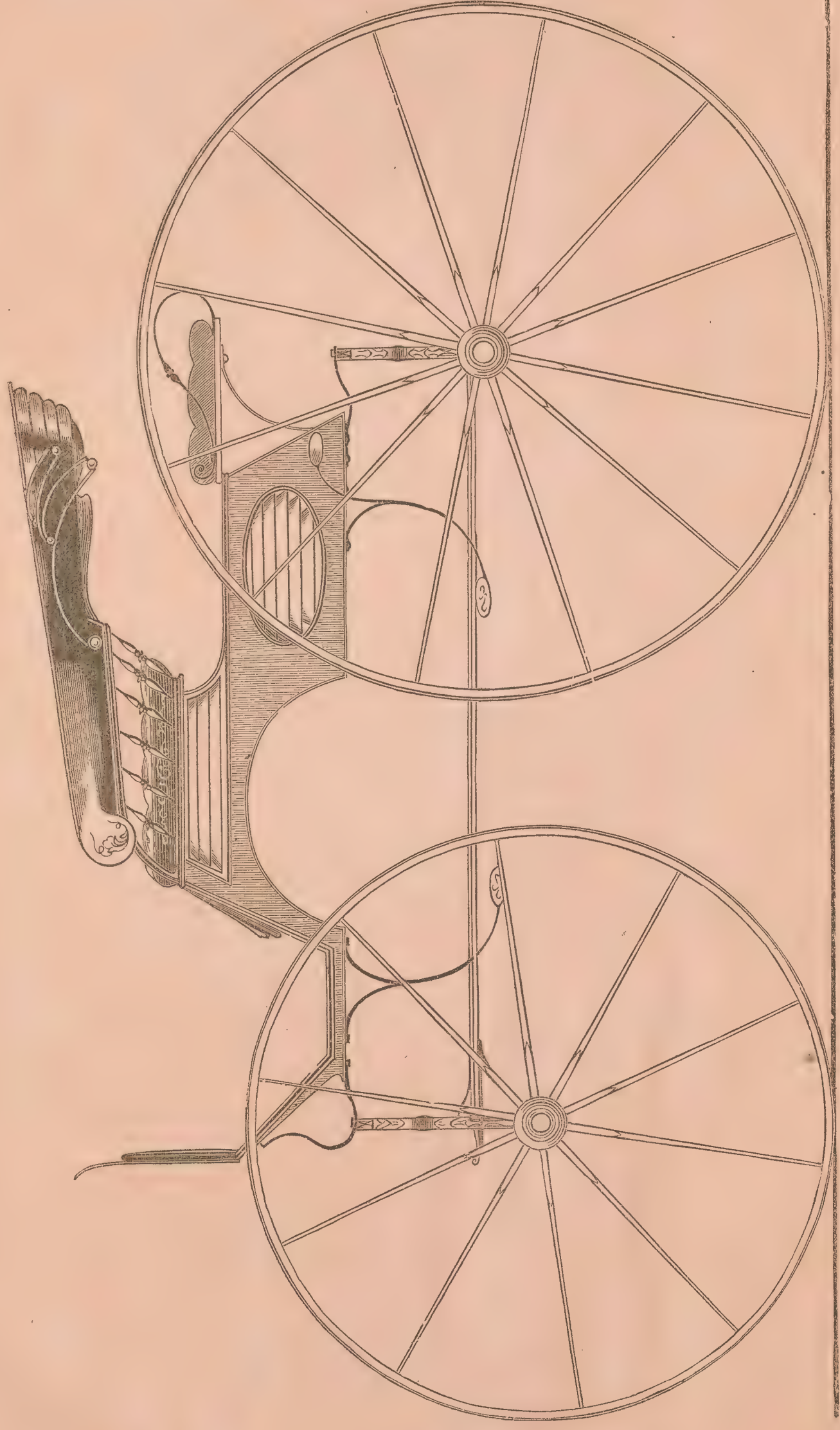


This improvement was patented May 6, 1856, by Mr. E. D. Rosencrantz, of New York City, and as illustrated in the engravings, shows that by the use of a sliding-barperch and body, a one seat buggy can be transformed into a two seated wagon, thus making a convenient family vehicle.

Mr. Willard H. Smith, 308½ Grand Street, New York, is the agent for this invention, to whom applications for shop, county, or State rights should be addressed.



THE COACH-MAKERS' MAGAZINE,--PLATE 55.



IMPROVED FRENCH PHAETON.—See page 128.

THE COACH-MAKERS' MAGAZINE.

TRIMMING DEPARTMENT.—See page 127.



Fig. 1.



Fig. 2.

Fig. 3.



Fig. 6.

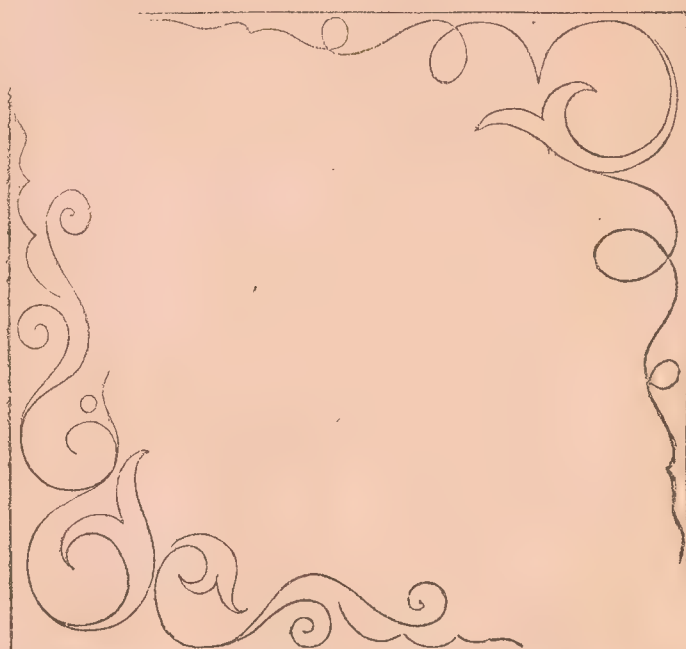


Fig. 4.

Fig. 5.

IRONING DEPARTMENT.—See page 127.

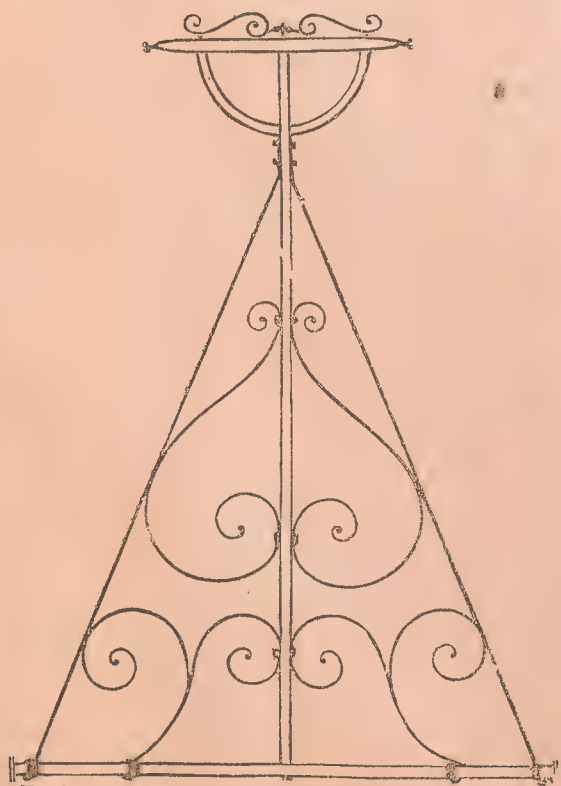


Fig. 1.

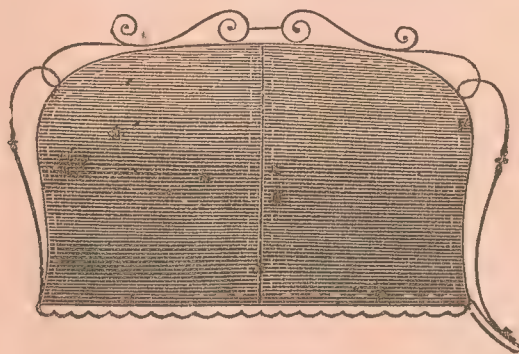


Fig. 2.



Fig. 3.

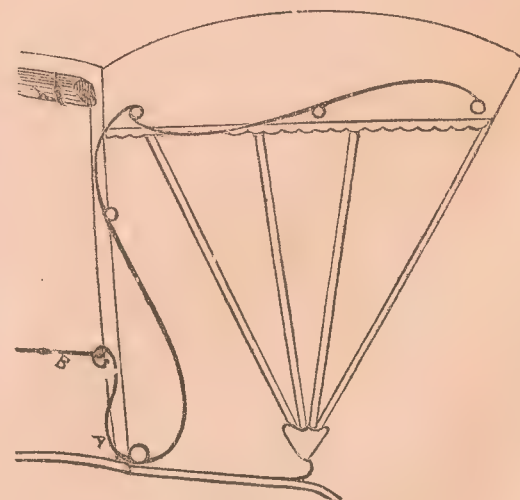
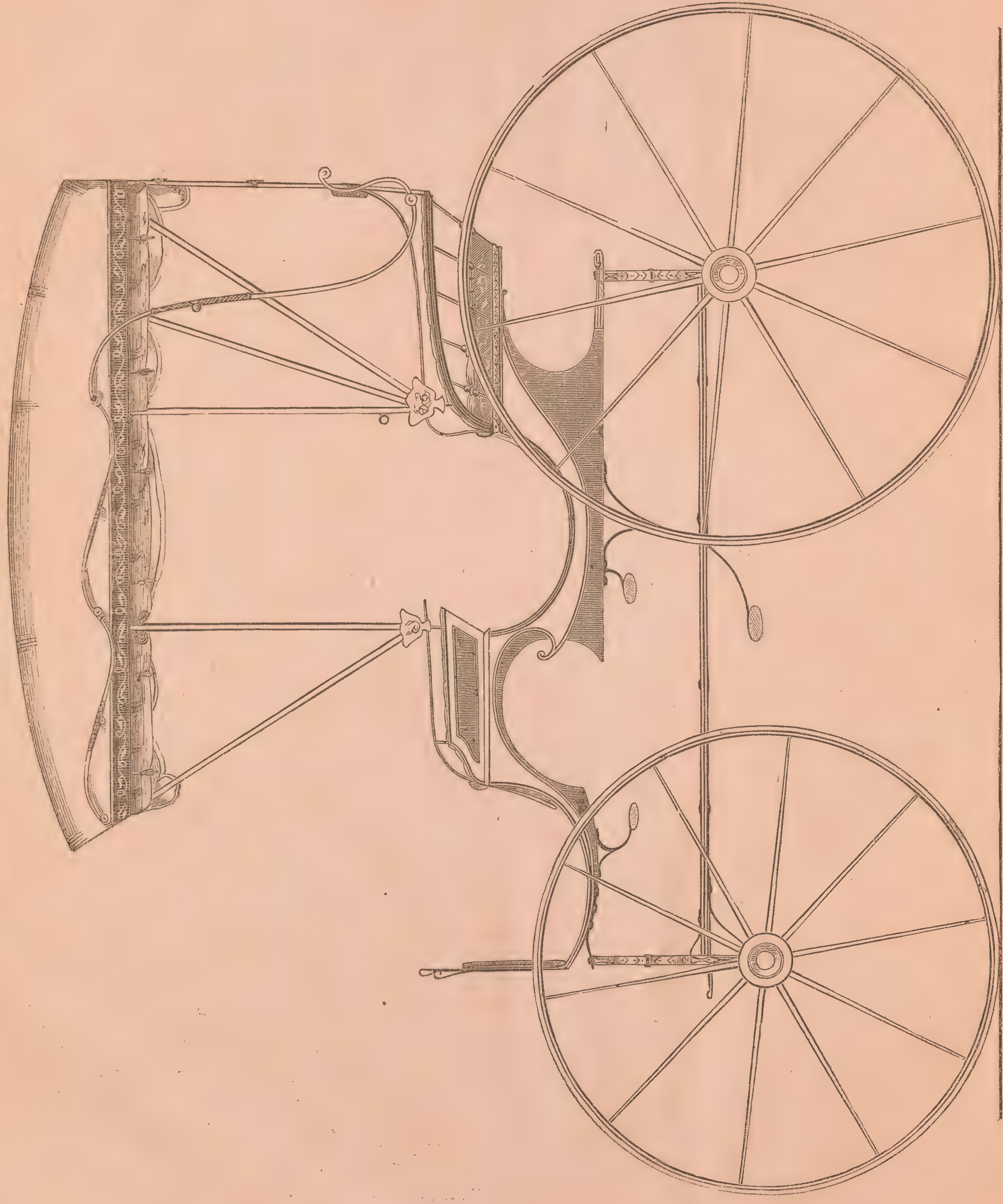


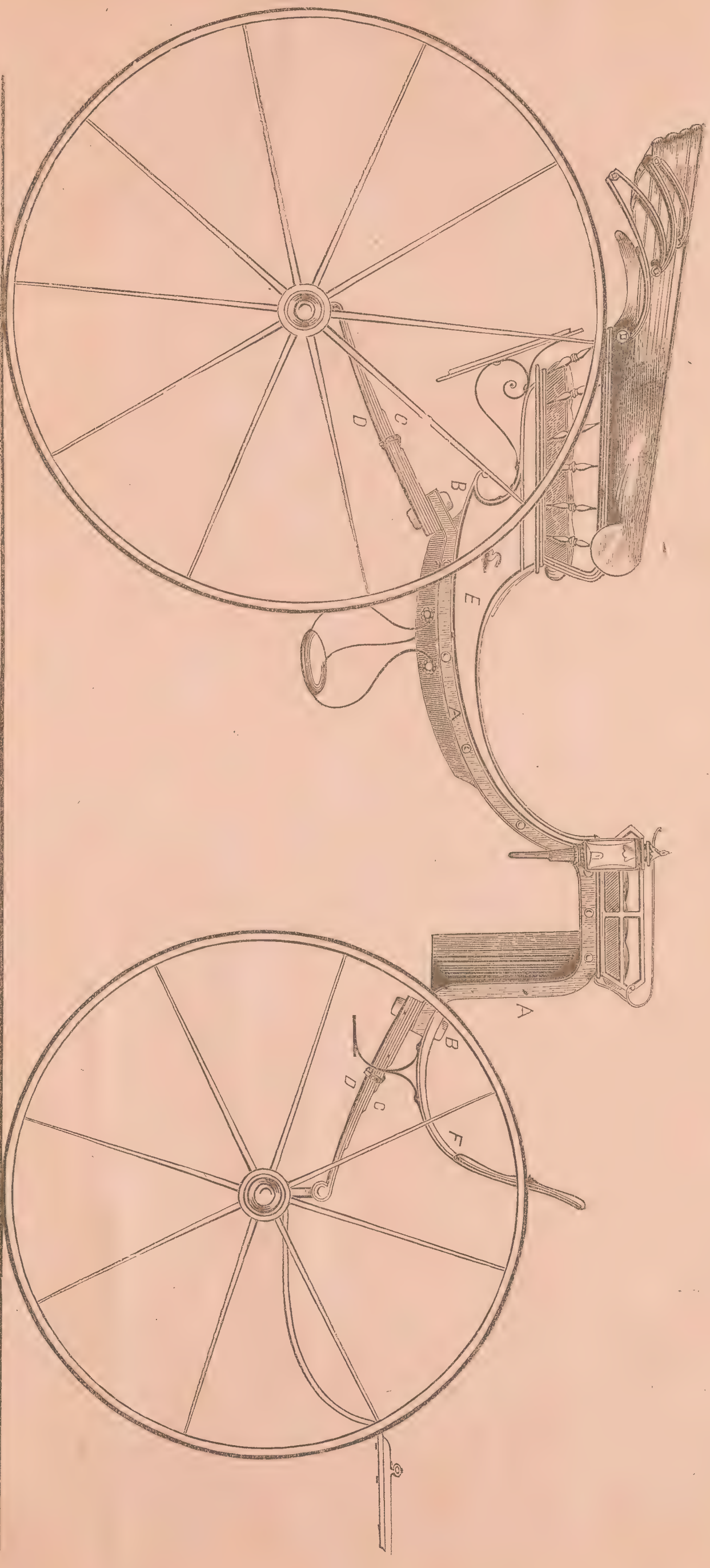
Fig. 4.

THE COACH-MAKERS' MAGAZINE.--PLATE 57.



SALADEE'S EXTENSION PHAETON NO. 2.--See page 129.

THE COACH-MAKERS' MAGAZINE.—PLATE 56,



THE WINANS' BAROUCHE.—See page 128.

THE COACH-MAKERS' MAGAZINE

Volume 2.--Number 12.]

December, 1856.

[C. W. Saladee, Editor and Proprietor.

COMMUNICATIONS.

For the Coach Makers' Magazine.

HACKNEY COACHING IN NEW YORK.

BY THE ASSISTANT EDITOR.

The term Hackney is by Lexicographers said to have been derived from the French word *haqueree*, a pacing or much used horse. The word Hack is merely a contraction of that of hackney, and as thus abbreviated, more forcibly impresses the mind with the idea of a worn out pony or horse, from which we suppose from his connection with a coach when harnessed thereto, we have the appellation *Hack*, or hackney-coach as now commonly used. Webster explains the term Hackney in connection with the word coach, as meaning a coach for hire in cities, commonly at stands in the street; but Walker, less definite and an earlier authority, says, it means to practice in one thing to accustom to the road. The word used adjectively has become an expressive term for anything overdone, or worn out, as a hackneyed speech; and as used by Shakespeare for example—

"He is long *hackneyed* in the ways of men."

It would seem, then, as though the name Hackney-Coach, (*Hackney-ed-Coach*?) was in earlier times given to this vehicle, out of contempt for its aged, or worn out condition at the period when it first took its position as a common-carry-all-who-might-offer-their-patronage; and this was the character of nearly all the carriages at the stands in this city, only a few years ago. Even now we often hear the depreciatory remark applied to a much worn coach—it is only fit for hackney—although there is a manifest improvement over the past, in the hackney-coach as of to-day; some of which as they roll along the public thoroughfares of our cities, would be taken for the private carriage of some aristocratic personage. We have frequently found our wondering curiosity very much taxed in endeavoring to decide in our own mind the question, as to whether the carriage before us was either a hackney or private coach, such an elegant exterior many of the public coaches now present, for the simple reason probably, that those in the business find, that unless they keep a good one, no person of feeling, or self-respect could be induced to ride in it, when traveling by rail, or the omnibus comes so much into the competition therewith.

It is now about three centuries since the coach first appeared in England. Stow in his 'Chronicle' under the year 1555, mentions the introduction in these words: "This yeare Walter Ripon made a coach for the Earle of Rutland, which was the first coach that ever was made in England; since, to wit in anno 1564 the said Walter Ripon made the first hollow turning coach with pillars and arches for her majestie being then her servant." For three hundred years, then, has the coach been in use under various modifications, and yet it was nothing more than a clumsily constructed affair down to ten years ago. Perhaps in no branch of our occupation has a greater improvement, for the last few years, taken place than in the building of the coach, and yet is there not room for still greater improvement? But we must not digress any farther from our subject—Hackney Coaching in New York.

We are not in a situation to give our readers the exact date when hackney coaches were first introduced into this city, but we have the fact on record that they were in use here in 1690, and doubtless they date from a much earlier period. It would be a very easy matter to give the number of coaches in use here as they have gone on increasing from year to year, but as statistics would not much interest the general reader, we do not think it necessary to lengthen out our subject with dry details. Instead of a decrease in their number in consequence of the establishment of railways in the city and increased omnibus travel, we find they have actually increased in proportion to the increase in the population up to the month of June last. This will appear from the fact that in 1854

there were 379 licensed hacks, and the special licenses (we suppose to livery stables) were 222; total 601 coaches. In 1855 they amounted to 371 ordinary and 348 special licenses; total 619, being an increase of 18 over preceding year. All licenses are required to be renewed the first week in June, annually, but as new applications for licenses are made during the year, of course we cannot give a complete list for this year; 1856. We find, however, by an examination of the books in the office of the Clerk of the Common Council, in the City Hall, that since the first day of June, to the 18th July, that 351 licenses have been given, and that between the 16th of July and the 2d day of October, 201 special licences were issued; total 552. The Hackney carriages are numbered from 1 to 458; the special licences from 501 to 725; but as a portion of the intervening numbers have not been renewed in consequence of deaths and some others declining the business, the number actually licensed is now (Oct. 7) confined to the previously stated number of 522 in all.

By a law of the State Legislature of New York, passed Jan. 23d, 1853, the "carts and cartmen, cabs and cabmen, hackney-coaches and hackney-coachmen," &c., were put under the special control of the police regulations. The Mayor, *ex officio*, has the power of revoking the licenses of any driver, if on complaint he is found to have forfeited it by any misconduct, but yet such procedure is productive of very little benefit to the public, as persons thus discharged are immediately engaged by some new unprincipled proprietor, who is but too well pleased to get a driver, in whose character honesty towards the public is not considered a jewel. In fact some hack-proprietors think that if their drivers are without the moral qualifications required in most other occupations, the better fitted are they for hack drivers, for we have been informed from an authentic source, that the first question put to an applicant driver often is, can you knock down? meaning in other words can you make enough out of the public "by hook or by crook" to turn into me a large sum, and leave for you in the reserved share enough to supply yourself with large pocket moneys.

New York may be considered as a sort of country-man-trap and the Hackney-coach as one of the baits used to catch him, and the driver the hunter who is on the alert terrifying him with hideous whoops and yells, or confusing and vexing him with incessant solicitations; and when he has you in his *trap* he will demand an excessive and extravagant fare, which if necessary, he is prepared to collect by force. Some have advised visitors "*to make a definite bargain with their hackmen before accepting his services, and then stick to it.*" This advice seems sound enough, but how is the stranger to know whether he is making a 'definite bargain' with the 'hackman' or his "baggage-smasher." For the benefit of our country readers then we will add a few explanations. Many of the hack drivers have an 'assistant' called technically *baggage-smasher*, who when he goes on board of a just arrived steamer, takes his drivers whip, and gets on board the boat and bores you vociferously with "want a coach,—first and finest coach on the dock—take you up cheap,—where do you want to go," &c., for all which (if he catches you) he gets 25 cts from the driver out of what *he forces* out of you under the name of fare, and *hard* fare it is too frequently found! Once inside of the "trap," and your destination the St. Nicholas Hotel distant one-half mile, by a circuitous route of some two or three miles he lands you at the door of your hotel, demanding an extravagant fare—not recognizing his 'baggage-smashers' contract—for having brought you *so long a distance*! Our advice to the stranger would be to take an omnibus, or car and have his baggage sent to his hotel by an express wagon, or if he must employ a hack to do so; but to leave his hotel-landlord to settle with 'cabby' who will charge it in his bill, but in the meanwhile to learn for himself, what is the legal fare for the distance traveled.

That you may know what *is* legal fare, every owner of a hack is expressly ordered by a city ordinance to post up inside of his coach

in plain sight, a card with printed 'rules and regulations,' but as this rule is not enforced, or else disregarded and systematically violated, we shall here add an abstract from it, for the public benefit. For one person, not over a mile, fifty cents; for two persons, seventy-five cents, and thirty-seven and a half cents for each additional passenger. For one person more than one mile and not over two seventy-five cents; half that sum for each passenger additional. One trunk, valise, or other article of baggage is to be carried without charge for each passenger; six cents each piece may be charged for more. For one passenger over two miles, for each mile, fifty cents may be charged; for each additional person the legal fare is thirty-seven and a half cents.

But we are asked the question; How are we to ascertain the exact distance we wish to ride? Aye, that is the difficulty, and we venture to affirm that not one among twenty of the citizens of this metropolis 'born and bred' here, could be found readily and satisfactorily to answer the question. It would not, we think, be an unprofitable undertaking, were some enterprising map publisher to get up a pocket map of this city with the distances from the principal railway stations and steamboat landings to the public houses correctly printed thereon; such a 'pocket piece' is as much wanted by the citizens as the stranger, but until this is done the following calculations will prove instructive.

It is about one mile from the Battery to Leonard Street, and about the same from the foot of Duane St. to the St. Nicholas or about the same distance from the different landings on the Hudson River side of the city, for steamboats and the same from Peck slip, E. R., and about three quarters of a mile to the Hudson River Railroad Station, and perhaps a mile to the N. Y. and N. Haven Railroad Station at the corner of Broadway and Canal St; two miles to Fourth St; two and a quarter to Fourteenth street (Union Park); three miles to Twenty-fourth St.; and four to Forty-fourth St.

It has for some time been the laudable desire of the most respectable Hotel keepers here, to have a "New York City and Baggage Line" established to carry passengers from different points, to the principal hotels at a uniform fare of 25 cts. This, as the reader will have learned from our Chip Basket for June, has heretofore met with all the opposition which a corrupt system was enabled to bring to bear against these praiseworthy efforts—and the opposition with the weak argument that such an institution *would very much injure the hundreds of persons already engaged in the business*, have to the present time prevented THOUSANDS of travelers from being benefitted by a manifestly great improvement over the present hack organization.

In illustration of the bad character of many of the persons engaged as drivers, &c., in the hacking business, it would require a separate chapter to do the subject justice, but which are daily being given in the newspapers of this city, but apparently with little benefit resulting to the persons who are most interested.

The following example we will give to show that it is not always the stranger "in Gotham," who is "taken in and done for;" but persons who by circumstances are presumed to know better, and consequently supposed to be fortified against impositions, from this source at least.

Passing by a hack stand near the City Hall Park, our Coach-maker was stopped by Jarvies' asking him if he would not like to take a ride—it would cost him nothing. Without reflection our brother craftsman jumped into the coach, the driver mounting his seat, drove off rapidly up Chatham and Division sts to near where Hester St. intersects the latter, where the driver stopping and getting down from his seat, opened the door and demanded \$2 as his fare. This our voluntary victim vehemently protested against paying. After many words of an angry nature, shutting the door, the driver was proceeding to drive off—we do not know where—but his victim being acquainted with the manner of opening coach doors, availed our adventurer now, and he jumping out made his escape, the hackman in hot pursuit. Had not the movement—fortunately for the escaping party—been observed by a policeman, who after having listened to the story of both parties, settled the difficulty by threatening to cage our Jehu, our traveler would doubtless have had the fare demanded of him 'taken out of his hide,' on the spot, a lesson in the school of experience, few would desire.

To the general charge of bad character in those engaged in the hacking business, it gives us pleasure to say that there are some exceptions, but it will be the safe course for the stranger to avoid all

coaches standing in the streets, or on the docks for hire at the different landings for the steamboats, &c., when it can be done; and the facilities now offered for conveyance by rail-cars and omnibusses to nearly all parts of our city, seems to leave very little necessity for employing hacks. You had much better therefore shun these nuisances whenever you possibly can. The whole system is a disgrace to the city of New York, and there are no indications of any improvement for the better at the present time, under the corrupt government displayed in the great metropolis.

For Saladee's Magazine.

A COACH-MAKERS' SECOND ANNUAL VISIT TO THE CRYSTAL PALACE.

The managers of the American Institute had announced the 22d of September as being the day for the formal opening of the Exhibition to the public, but in consequence of some unforeseen delays in the reception of articles for exhibition, the time was postponed until the 25th. On that day the Hon. Henry Meigs delivered his annual address and declared it as formally opened to the public, but as the managers had imprudently—we think—given exhibitors until the 4th of October for presenting their contributions for competition, such tardiness in bringing forward the necessary articles had been shown, that, at that time there was scarcely anything to be seen, and only five buggies in the building. On the 1st day of October, however, such had been the diligence of inventors and others in bringing forward their productions, that the prospect promised fair for enabling those at the head of the management to give one of the best and most successful exhibitions ever got up since the origin of this Institution, twenty-eight years ago. Subsequent success fully realized these expectations in almost every thing else but carriages, which may be summed up in seven top and five no top buggies, one sulky, an omnibus, and a few sleighs and express wagons, all placed in the south nave of the building, on the ground floor. These being the facts, our readers will see how meagre are the materials presented to us for carrying out our promised intentions of giving such matter as will be either entertaining, or instructive, on this, our second annual visit to 'the Palace.' Intending to confine ourself principally to carriages and things connected therewith, we begin with

No. 564, which is a top buggy from Flowers' & Van Ortwick, 44 Fulton St., Brooklyn, which as we presume was not brought here for competition, renders it an unfit subject for criticism. With this Mr. Flowers exhibits his recently patented shaft coupling to the public, which, although it effectually accomplishes its intended object, is certainly more clumsy in its appearance than other inventions for the same purpose recently brought forward.

No. 1547. Our young friends, Wm. and A. S. Flandrau of 250 and 252 Ninth Av., have an elaborately carved and stitched no top buggy, varnished carriage-part, and very light, with the Murgatroyd Patent Suspension Spring, or rather combination of springs, for which the patentee claims—graceful and easy motion—extreme lightness of draught—simplicity and economy in construction—lightness and elegance in appearance, and greater durability, and less liability in getting out of repair. This buggy appeared to attract considerable attention from the visitants at the Fair, and we are pleased to find that our enterprising friends have received several orders for duplicating their well made article. This firm being ambitious and enterprising, are deserving of success.

No. 906. H. M. Millers' shell-formed-body Phaeton, which we have noticed in our Chip Basket for Nov., as being on exhibition in the New Jersey State Agricultural Fair recently held at Newark. It is lined with drab coteline; very finely painted and striped, rather heavy, and what we would call rather overdone in some of its details; price \$300.

Mr. Benson (No. 1325) of this city exhibits a neat and plain no top buggy; and Mr. Martin (No. 1448) of 329 Eighth Av., a road wagon, painted and grained in oak colors, with a clumsily looking wooden axletree; compound half elliptic end and side steel springs, very plainly finished.

No. 1491 is Messrs. King & Wilcox Son's 'light pleasure wagon,' the most showy article in the whole collection; carriage-part red, and "carved to death," which we think is in bad taste; stitched elaborately with gilt colored and white thread; in combination; trimmed with blue coteline head linings and leather substitute for laces. We heard a remark from the lips of a visitor to the effect

that the Prince's metal with which the joints, bands, &c., had been plated, had not been in consonance with the taste of the public generally, however much it might meet the approbation of a few individuals.

No. 2313 is another Murgatroyd spring wagon from the Repository of Mr. Mix, in Broadway; and No. 2338 a very well got up top buggy from Mr. J. L. Smith's factory in 28th street, with a very badly varnished carriage-part of wood color. This inexcusable defect is a great draw back to the general appearance of the whole work, notwithstanding that the job is well trimmed and painted.

Our friend Mr. J. C. Ham is here again this year, with a very good trotting buggy, without a top, (No. 2369) and a top buggy with a sliding seat, (No. 2370) with the tires of both put on without either bolts or screws, on Mr. Ashe's recent'y patented plan. This is done by having a quarter-inch half-round moulding raised along the inside center of the tire, fitting into a corresponding rutted groove in the rim, or felloe of the wheel. Mr. Ham, to whom this patent has been assigned, is very confident that this plan is more efficient in keeping the tires on the wheel than the old way, and it also avoids the danger of weakening the felloe in boring for bolts, and besides is less expensive to the manufacturer.

No. 2610 is an old wagon with Hubbard's Patent Spring and Coupling, which differing in some respects from anything seen by us before, induces us to give the inventor's claims to the reader. He says, "this spring obtains greater strength and elasticity, with less material than has heretofore been done, and it also prevents the ends of the spar [wood side springs] from splitting. The short turning [coupling] combines all the advantages and avoids all the objections found in other devices for this purpose." This is saying a great deal, and when we are told besides, that "these improvements meet with universal favor, in practical use," we call for the proof thereof.

Mr. Beardsley (No. 2733) contributes a buggy without a top; light, neat and plain, well painted.

Besides these there are several Portland and other sleighs, Express wagons, &c., calling for no special mention, and a single omnibus, manufactured by Mr. C. Beatly in his usually superior manner, for the Houston St. and Av. A. Line of the Messrs. Sudlow & Siney.

Besides the above Mr. M. Soverel exhibits his carriage shaft safety-bolt patented last March, "combining safety with convenience and neatness, besides which the inventor tells us; first, there is no nut to lose off, or key to drop out, whereby many accidents happen to the loss of life, or limb; 2d, Convenience. No wrench need be used in changing from shafts to pole, or, *vice versa*; but merely to pull back the bolt, which is kept in its place by a brass spiral spring; 3dly. There is no dirty strap to mar its neatness, all which improvements *ought* to be appreciated by the public. Where is Chapman?

We also saw a model for an omnibus car from "the N. Y. iron pavement and Rail Road Co.," 159 west 23d St., for which improvements are claimed in the projection of the curb sweep roof, over the side of the body; and secondly, the body looks lighter on the side by raising in the middle and the top is so constructed as to be easily removed. Mr. J. Doran in the absence of the Schoolmaster, tells us "such is its merits!"

The Messrs. Whittemore & Jones, of Elizabethport, N. J., and the New Haven Wheel Co. contribute some very fine made wheels, the appearance of which is creditable to the manufacturers. In a corner of the building we saw a machine with 4 bellows' attached for smith's use—we judge this article must be like unto some men in one respect—"a great blower;" and promises as much for efficiency as some politicians previous to their getting into office.

We found in operation here a machine for *planing* spokes, instead of turning, at the rate of 100 per hour from a rough stick; and Mr. L. W. Langdon's Knot Stitching Machine for leather, &c. which is something new and can be sold at a very moderate price, thus placing it within the reach of all. The work of this machine cannot possibly rip out!

In connection with the above we may mention Woodruff's new self-acting Gate by which the annoyance and sometimes danger of alighting from carriages is entirely avoided. This invention has already been described in a late No. of the *Inventor*.

Mr. Fisher the artist tells us now that he is sanguine of being

successful with his Steam-Carriage and asks that the wealthy friends of struggling genius would advance him 2,500, a little over \$700 of which is already subscribed, towards building a carriage for useful purposes.—as he is now positive that experiment is merged into certain success—say \$1900 for the iron work and \$500 for the other parts; of which he presents several painted models.

We found at the Palace what we had often heard of, but never saw before—a veritable leather medal—which the exhibitor says was the only one bestowed at the Fair in 1855, as a—*Merces pro Merito*—reward for merit, in daguerreotypes, and is evidently self-bestowed at that. We chronicle Mr. Holmes as being something of a wag, in presenting *this diploma*!

Upon the whole, on minutely inspecting the contents of this Exhibition, we are forcibly impressed with the fact, that American ingenuity is inexhaustable, and we pity the man who can take an elevated position within this edifice, filled with noble specimens of Industry, Science, and Art, and not feel proud of his country; and we congratulate the Managers of this Fair, whose untiring exertions have been crowned with such marked success, in all things—as we intimated in the commencement of this article—except the carriage department, which to say the least, is not very creditable to the trade.

P. S. Since the above was written, but too late for competition, there has been another road wagon added to the collection (No. 2878) from Newburgh, N. Y., by L. J. Bozzonia, which is a very fine article, very beautifully trimmed, &c. Also Mr. Fisher informs us that he has an addition of \$600 more subscribed towards putting his steam-carriage in operation. Who will be the next patron to this enterprise? Who is ambitious enough to immortalize himself by giving \$1000?

E. M. S.

For the Coach-Makers' Magazine.

AXLETREES.

TO THE EDITOR COACH-MAKES' MAGAZINE:

Dear Sir:—In your August No. I find particular attention directed to the best mode of setting an axle, and by "S. M. W.'s" remarks on the subject, I find by my experience in the business, that he is in error in regard to the length of the axle, and I fully endorse your correspondent "Mentor's" views in regard to the matter of length of axle in this particular, but I find in both "S. M. W.'s" and "Mentor's" nothing conclusive, nor neither would I say that my plan is the *ne plus ultra*, but "Mentor" does not say anything about (what I call) the swing of the wheel, which I consider of more importance than any other operation connected with setting an axle; it is this. The difference between the width of the top and bottom of the wheels when resting on the grade or road. I am perfectly satisfied in regard to the length of the axles, as the lower the wheels are the longer the axle; that matter entirely depends on the difference in the height of the wheels; whether the wheel is (what I call) straight front or dishing; and if the wheels dish alike or not, it does not make any difference in my estimation, because I consider the swing of the wheel affects both the track, and by it I am governed in the length of my axle, and if this part of the operation is neglected, it is a matter of chance whether your wheels will be parallel and track right.

The beauty of a carriage is not altogether in finish of painting and trimming, nor does its durability depend on these departments, and if buyers would look more to the construction of wheels and the mode and plan of setting axles, there would not be as much dissatisfaction with those on whom the craft depend for patronage, as I think the wheels and axles constitute the most important part of carriage-making; for if the wheels and axles are good, the carriage (I have no doubt) will give satisfaction both to the buyer and builder; whereas if the wheels and axles are not good, it injures both maker and wearer, as it injures the maker's reputation and is a source of expense to the man who uses it.

But to return to the wheels and axles. I will give my plan, which I have used since I first took any interest in the business, and which was my first object to attain the exact length of the axle; but there is such a variety of axles that I am obliged to resort to my plan in every carriage I build, but if your axles are all one pattern, the same rule will apply to them all. Your correspondent, "S. M. W.," when he says that axles should be of an exact length, must allude to wheels which are built with the spokes

set out and in the hub, and all verging into the fellow; in that case the rim stands at right angles with the axle, which of course would make the wheels run perpendicular, but would not allow any swing to the wheel; so that goes to illustrate "Mentor's" theory in length of axles, but I think the idea is absurd.

I find that wheels to wear good, should dish a little, say from $\frac{1}{4}$ to $\frac{1}{2}$ of an inch, measuring from a straight line across the front of the wheel to the front of the spoke, but you will find in wheels that are well made, some difference after the tire is put on, and if the dish is too apparent to render it necessary to remove the tire, do it; if it is otherwise, the difference must be particularly noticed, and calculated on in the length of the axle, and to avoid any uncertainty, I measure all the wheels before giving the length of my axles.

We all know that the object aimed at by all carriage-makers in regard to wheels, is to make each part bear its proportion of the weight imposed, and to avoid friction as much as possible, and to this end it is very essential that the tire should present an even surface to the grade, and to attain that object you must be governed by the length of your axle, without which you cannot be certain of your proceedings.

I have seen in my career men who had grown gray in the service, and were deficient in the first principle of carriage making, and that is in wheels and axles; but they labored under a great disadvantage, and at the same time were very acceptable workmen. Now I do not impute ignorance to such men, but I do say that they never studied their calling; as, for instance, they would build a carriage and labor to set their axles without knowing how their wheels would stand, and after their carriage was set up they would find, when too late, their front and hind wheels did not range alike, and I would say that there is nothing in a carriage that looks so bad as to have the hind and front wheels out of range; no matter what the dish of the wheel is.

My plan of setting wheels is this: I find the dish of each wheel, measuring from the back of the hub to a straight line, drawn across the face of the wheel, and deduct the number of inches and fractional parts of an inch from the width of track, from outside to outside of the tire. I then add one half of the swing which I mean to give the wheels, to what is remaining after deducting the dish of the wheels, and I have the length of the axle in all cases, observing that my tire stands horizontal.

I endorse "Mentor's" views in regard to taking the dish out of a wheel after the tire is on, (that is by taking off the tire) as I look upon the practice of hammering a tire after it is on as careless and injurious to both the tire and wheel, and renders it more liable to work off, and does more injury than the operator is aware of. I always take off a tire that is too tight before it cools off, and before the fellows and spokes get to their position. But if it is a wheel I do not care much about, I use a set hammer and sledge, and it will draw equal on both sides. Yours, truly, A. M. C.

Poughkeepsie, N. Y.

IRONING DEPARTMENT.

EDITED BY "H. J. P.," OF OHIO.

[The carriage ironer may expect a regular Department from this issue, at least until the close of the third volume of the Magazine; and while we shall endeavor to render it *practicable* and interesting to that numerous class of workmen "who fashion the iron," we would at the same time solicit contributions from all such as are capable and feel *disposed* to furnish them.—ED. IRONING DEP'T.]

Fig. 1—*Scroll Stay for a light Phaeton.*

Fig. 2—*Scroll Dash for same.* (The top rail bolts on at the junction of the side handles.)

Fig. 3—*Scroll Back Brace.* (From back spring bar to body.)

Fig. 4—*Saladee's Patent Top Lifter.*—In this design the lifter or branch A, by which the top is adjusted, is made to form a scroll at the top, into which the lateral rod B is inserted. This lateral rod is applied in such manner as to lay close to the back of the seat, (and 1 inch above the edge of the back) so that the back curtain when down, will pass over it, thus leaving the rod on the *inside* of the curtain. We consider this improvement of Mr. Saladee the most simple, cheap, and effectual mode of adjusting tops which has ever come under our notice.

TRIMMING DEPARTMENT.

M. G. TOUSLEY, OF OHIO, EDITOR.

HINTS AND SHADOWS.

"Coming events cast their shadows before."

A mighty revolution has taken place within even the last five years, in the tastes and wants of mankind. The mechanic is being transformed into an artist, the farmer into a gentleman of taste. The piano has succeeded the spinning wheel, the College the Common School, and even the most unsophisticated pride themselves in a greater or less degree, upon being versed in the science of mechanics.

In keeping with the "spirit of the age," our profession, which is to a great degree decorative, should stand forth at the present time far in advance of what it now is. Yet coach-trimming has by no means stood still. New methods of accomplishing old things more elegantly and expeditiously, whether learned by design or accident, are certainly being introduced; yet our oldest and in many instances our best coach-trimmers from force of habit, still persist in practicing the crude and ridiculous usages of former times, and many who possess a high degree of the "Young American" spirit of progress and invention imbibe from them those time honored and sanctioned (*hinderances*) examples. But let me counsel young men as they value their time, and in fact their reputation among the most advanced of their craft, to prune off foolish and ridiculous preliminaries, and proceed to accomplish all things by the most direct means.

The seaming of lace in many shops consumes much time, yet a workman who learns to use it without, can tack or sow it just as fast and do it just as nice as another who has it seamed. The use of the tufting block not only lumbers the bench with an unnecessary tool, but absolutely damages every cushion with which it comes in contact. The use of springs in cushions either renders the back of the seat a useless appendage, or the backs of coats and dresses soon become so. The knobbing of the side valance over the side curtain, not only makes it a troublesome job to slip off the curtain, but soon tears to pieces and destroys the valance. Silk festoons in light jobs are fast going out of date.

Top lifters are in many instances valuable, aside from common uses of lifting and falling for the ingress and egress of passengers, for comfort, convenience, &c. In cases of a runaway or a break down, they are invaluable. The short top lever, however, is behind the times. The seat lever is very good, but considerable complicate, and interferes with the trimming somewhat. Allen's patent is still handier but more complicate. The simplest, cheapest, and most effective top lifter that has fallen under our notice, is the one illustrated in the "Ironing Department" of the present number.

A light fluted and scalloped bow fastener to serve the double purpose of bow socket and slat irons, so shaped as to cover the end of the bow and receive a small, straight tip of iron from each would not only admit of the slipping on of a cover stitched by machine or otherwise, but if handsomely plated would be highly ornamental.

Festoons might and should be manufactured with gimp fringe, tassel or net work wove on them, upon the same plan that wide gimp fringes are manufactured. It is singular that gimp and fringe manufacturers should have overlooked this.

BOW SETTING.—The theory at least of bow setting belongs to the trimming fraternity and is a matter which should be generally understood by the craft. In Fig. 2 we present a draft for *setting Bows by the Square Rule*.

This draft can be made full size for use in one moment, upon a door, wall or draft board. 1st, strike the bottom line the ordinary width of a top, say 3 ft. 6 to 7 inches in length. 2d—Square the sides to the height of 3 ft. 9 inches, which is the proper height of top from bottom of seat. 4th—Draw top line forming the square. 5th—Draw two lines as in draft, dividing the square into three equal parts. 6th—Draw a line $3\frac{1}{2}$ to 5 inches from back line according to pitch of seat back. 7th—Draw a horizontal line the height of bow pivot iron from seat bottom. 8th—Set an awl in the centre of 7th line, attach a string and draw a top sweep. This draft will answer to set tops by for years. Then to obtain the distance of the pivot iron from the back of seat, commence and dot or cross the 7th line once in half an inch from 16 inches in front of the 2d back line, to 20 inches, as these are about the extremes of distance in wide and narrow seats. If necessary, more hori-

zontal lines can be drawn above and below to suit the various heights of the irons. This draft once made the pivot iron of any seat can easily be located, and a measure taken from thence to the crossing of the sweep and dividing lines, thus obtaining a precise measure of the difference in the lengths of each bow. After this draft is made, this last is but the work of a moment. You then screw the slats to the pivot iron, and proceed to set the top. A boy then steps into the job and holds the front middle bow up by the proper slat, while you stand a 3 ft. 9 inch straight edge first under the one side and then under the other, until it is leveled; you then bore the top hole, saw off, and screw on. The other three bows can be set by that, regulating the difference of each by the measure of the draft; then set up by the scale. There is, however, a difference in the shape of slat irons; the malleable wrought, and patent ones all vary in shape and also vary the set of the bows. To avoid this difficulty, lay the slat on the draft at the time of taking the measurement. This is not only a precise but a speedy method of setting bows. The frame is a bungling apparatus, and the various other methods of setting them by half measure, half guess, is at best uncertain. If any one has a better method we should be pleased to have them present it through the columns of the Magazine.

CONTRIBUTORS.—We have secured the co-operation of some very eminent designers in our profession, who will from time to time cheer the reader with their happy and well timed productions. The names of contributors to this department will appear only at the close of each volume; hence we hope that false modesty which has prevented many others from contributing, will disappear with this change. We hope that Trimmers will be willing to give as well as to receive through their Department. Any draft or idea which is sufficiently explicit to be comprehended by the editor, will, *by request*, be remodeled and put in shape to appear well in print.

Where is J. C——, our quondam southern friend? We should be happy to renew from his eastern home that former acquaintance which was only *too brief*.

Friend S——, what are you figuring at in Aurora? Please report yourself.

THE COACH-TRIMMERS' MONTHLY PATTERN SHEET.—We doubt not but this feature of the Trimming Department will meet the hearty approval of all. The half figure for trotting buggy boots drawn by our worthy contributor R. B. is true, neat and original in its design.

The single scroll corner by C. W. H. of Connecticut is the most simple yet perfect pattern that can be imagined. We have a number of his fine drafts on hand, which shall be forthcoming as soon as we can find room for them. No. 4 and 2 are both of them bold figures. The "inverted scroll wreath," given half size, formed the centre design stitched upon the front fall of Clark's premium carriage, exhibited at the Ohio State Fair; if finely and neatly stitched it makes a rich centre pattern, but is too elaborate for common use.

The coach-trimmer may look upon the pattern sheet and the present enlarged Department as permanent fixtures to each No. of the Magazine during 1857. The patterns obtained from the sheet each issue are worth to most of trimmers the full price of Magazine.

BIND THE MAGAZINE.—This year's Magazine will soon be disposed of, and the volume out of print; then it cannot be obtained at any cost, for no one who has it bound will be fool enough to part with it. Fifty cents will bind it in paper and 75 cts in muslin. When bound it will become more valuable with age as it will be sought after for reference.

Remember that what is once in the Magazine will never appear in it again, and that when you allow a volume to go out of print by wasteful neglect, just so much of the printed history of coach making is lost. Why not bind it in red morocco and gilt to lay upon your centre table; it is neatly printed and finely engraved; the paper is first-rate. It makes a fine book and why may not the coach-trimmer feel a degree of honest pride in laying it where his friends can see and appreciate the thrift and the enterprise of his craft.

We hope that every trimmer who is at present a subscriber to the Magazine will consider himself as an appointed agent to extend its circulation. There is room for each present subscriber to obtain one more in his own branch, which with a small but simultaneous effort would double the present subscription list; and a publication

of this sort should be sustained. First—it forms a union of interests, and serves as a communicative medium. Second—it disseminates local tastes and usages, thus giving its reader an association of ideas and items from which to cull. Third—it is calculated to advance the literature of the craft and root out egotism, selfishness and error. A new volume is about to commence; renew your subscription immediately, and induce your neighbors to do likewise.

There is one more thing to be considered, which is this. Since coach-makers have found it expedient to bind and preserve the Magazine, it becomes necessary for them to keep it clean, which cuts off the sponging system. Each must have it, read it, and lay it carefully away. Again, the more that take the Magazine, the cheaper it comes, until it is reduced to the price of a common country newspaper, \$2,00 per year. At that rate all can afford to take it; even apprentices. "A word to the wise is sufficient."

THE OHIO STATE FAIR.—As editor of this branch department of the Magazine, it will not be expected that we expatiate very largely upon the generalities of the craft as represented in all its parts at the Ohio State Fair. This, of course, falls within the province of our worthy senior, Mr. Saladee, and no one who has ever met with this tall specimen of the quill driving fraternity, will for a moment doubt either his disposition or ability to do it full justice. We will preface our remarks upon this by making a few general observations upon State and County Fairs.

The full talent of the carriage making interests in any locality is seldom if ever brought out at agricultural fairs. In the first place the premiums for coaches and carriages are merely nominal ones; lighter in proportion than upon any thing else, whereas they should be heavier; for the simple reason that the expense of building them for this purpose is proportionally greater than that of fitting stock or machinery, and unlike them when built for that purpose, carriages are to a great extent thrown out of market. For these reasons there is less attention paid to fairs than there would be under other circumstances.

Again, carriages built for exhibition, are in almost every instance hurried jobs; and material, especially in our branch, is often used for the want of something more appropriate, which operatives can feel but little pride in. After taking the foregoing facts into consideration, we feel but little disappointment at finding our craft rather imperfectly represented even at a State fair.

Ohio can boast of many first class coach and light workmen, but their respective employers do not all see fit to build State fair jobs; so that no number of carriages which a thing of this kind can call together, should be considered as representing the State. They should only be looked upon as representing the shops from which they severally emanate.

When we say that the representation there was not as good as we could have wished to see, we do not mean that there were not many jobs, which, taken as a whole, were creditable not only to the reputation of their builders, but also to the State, or that in our branch the work was either bad in taste or execution; but simply that there was little that was new or interesting to a trimmer in search of items, and perhaps no class of mechanics stood according to their number, so largely represented upon the Fair ground as trimmers.

The first vehicle that met our view was the senior's "Three-wheeled Phaeton," and in glancing at its interior found it adorned principally by the pleasant phiz of our worthy co-laborer, Mr. Terrill, who assured us that it stood as the representative of mechanical principles rather than mechanical finish.

A light Brett, from Holden & Brown's, Cleveland, was plainly, but neatly trimmed with blue cloth and "patent-leather lace;" the back was a plain, soft roll over a wide swell, reaching beneath a welt at the top, above which was a light staggered flute work, forming on to the arm plaits at each end.

A light, beautifully constructed Trotter, from the Repository of F. C. Dayton, Cleveland, was next in the row. The trimming was plain, stitched with a machine, in plain lines; rather coarse. The dash was extremely light, and covered double; the railing of the seat was rounded, and instead of a roll the whole rail was covered with railing leather, "ball stitched" on the under side.

Holden & Brown's Trotter was plain in its trimming; also another from some place out of the State—I think Buffalo.

One large barouche from the shop of Mr. Drum, Cleveland, was plain; *very plain*—large rolls and diamonds.

A sleigh, which was very beautiful in its make, and was said to have taken the premium at the World's Fair in New York, was trimmed in a shocking bad manner. The inside was carpet, and the shell row around the top was crimson plush. Another was not attempted to be trimmed as nice, but was in much better taste; plain carpet throughout; the sills, however, were stuffed out to an immoderate size.

Oviat & Co., of Tallmadge, were represented in spite of themselves, by the sending in of a half worn carriage by a customer.

The Ravenna Carriage Co. had a very fancifully trimmed Trotter on the ground. Its material was black bow leather, with white inlays and bronzed welts; the inlay patterns were very pretty, on the bud plan, the vine being formed of stitching; the buds were not filled, probably on account of time.

N. D. Clark & Co., (also of Ravenna, Ohio,) were on hand with a large family carriage, valued at a thousand dollars. The trimming and painting was very elaborate. The dash was encircled with a scroll wreath; the flap was thrown into pannels; the centre one filled with a rose sprig and scalloped frame work; the outside panels were checked into fine diamonds; the straps were covered and stamped with a loop stamp, ornamented where they took into the top of flap with a silver drop ornament. All of its leather work was double bound, and all of its lace seamed instead of "lace-tacked." The sills were patent-leather, as was the front seat; the front back was made on a plan similar to the "Snake Roll" illustrated. The inside backs were yellow sprig cotaline, worked with diamonds at the top points at the bottom, and a "heron-bone" roll at the top and down the arms. The cushions were full diamond tops; (will be explained hereafter); the doors were after the model of the Oct. cut; also holders and centre carpet as illustrated in this. The top was narrow, quartered with back and front alike; roll-up sides; curtains stitched fast to the side valance, and curtain straps tastefully inlaid with cotaline; the centre panel of back quarter was checked into diamonds, and finished with serpentine box loops. The *Cleveland Morning Leader* in speaking of this job says:

"Its painting and trimming deserves particular notice. On each of the side doors was a finely painted image of Cupid reclining upon a bed of flowers, with a smoking censor in his hand, and beside him two white doves. Upon the "Opera board" was penciled a life-like sketch of an equestrian battle between two hostile chiefs, as delineated in Western History. The artistic design and masterly execution of those alone, deserve a premium. The style of the cushion work was mostly new and very elegant. Its top and front were elaborately penciled with scrolls and flowers, neatly and finely stitched. To say nothing of its beautiful inlay work, and a thousand other fine points which grace it, it should be seen to be appreciated."

The *Herald* adds:

"The trimming and painting, in particular, both in artistic design and mechanical execution, comes up to anything of the kind before exhibited in our city."

This much for N. D. Clark and the city press.

Now, for the encouragement of both the proprietor of the Magazine and the readers of the finishing departments, I would announce, that the artist referred to in the above extracts (as entitled to a separate premium) will, with the next No., become a regular contributor to the "Painting Department" of the Magazine, and we welcome him as one by whose side we feel proud to stand as co-laborer in the interests of the Coach-making fraternity.

AMERICA.

Land which our fathers bled to free,
Land of IMMORTAL liberty:
Land of sunny waves,
And heroe's graves;
Land of the free, on freedom's shore,
May your flag float forevermore.

Land of mountains and of vales,
Of love's stories and fairy tales;
Land of sunny hills,
And running rills;
Land of lakes and rivers deep,
Land where heroes, statesmen, sleep.

Land of vallies and of plains,
Place where the goddess beauty reigns;
Land of sunny glades,
And dark-eyed maids,
"Land of the brave, home of the free,"
Throne of the goddess liberty.

VAN SOMERBY.

EXPLANATION OF THE DRAWINGS.

Plate No. 55---Improved French Phaeton.

Among the best and most neatly executed designs for a "fancy Phaeton," is the one we represent by the above figure. It is extremely simple in its mode of construction, and at the same time possesses all the desirable advantages claimed for vehicles of the more extravagant and expensive kind. The following is a description furnished by the contributor.—ED.

For Saladee's Magazine.

MR. SALADEE—*Dear Sir*:—I am much pleased, I assure you, to see that you have concluded to enlarge the drawings on the plates to double the usual size. This, in my opinion, is the widest stride towards perfection you have ever yet made in the "Coach-Makers' Magazine." May you ever continue to improve this our worthy representative as you have done in "times past," and may you, likewise, succeed in achieving a greater triumph than you have ever before had the pleasure to boast of; but to the point.

I herewith hand you a design of my own for the Magazine, with enlarged drawings. Though imperfectly as they may be executed, you will nevertheless catch the idea, and have a perfect drawing made therefrom; (that is if you like the design). There is a Phaeton of French origin, very similar in some respects to the one I send you, but in its general appearance and mode of construction, is vastly different; still, it resembles the original "French Phaeton" enough to be entitled to the name I have given it at the head of this letter. In putting this body together there is no bottom side used, or necessary—rocker and side only being needed. The "lattice work" figures shown in the side are cut into the solid pannel, as represented, and is most generally painted light green or a shallow straw color, while the remainder of the body is painted any color desirable. The hind seat is so arranged as to turn over, and when not in use it is thrown into the body, thus filling and making a finish of the vacancy left for the feet when in the position it now assumes.

Yours, &c.,

J. E. MANLEY.

Plate No. 56---The Winans' Barouche.

In the June No. of this Magazine, we presented our readers with the illustration of a buggy patented by Tho's Winans, Esq., of Baltimore, and in our last issue we had occasion to speak of a buggy we are now using of that construction. The vehicle in question, having pleased us so far beyond our most sanguine expectations, we were led to inquire whether a carriage on a more extensive scale could not be constructed on the same principle, with like safety and comfort. We thereupon set about designing something for that purpose, which resulted in the beautiful drawing illustrated in this No. The mode of construction in these carriages is extremely simple, and when complete, less liable to get out of repair than any other, for the reason they require fewer joints and pieces than the ordinary class of pleasure vehicles.

The only objection that we, or any one else could possibly offer to this carriage is, that in case either of the springs should by accident break, there is nothing to prevent the body from falling to the ground, and thereby render the accident more serious than it otherwise would be. But the ingenuity of Mr. Winans has triumphed over this objection most effectually, by the application of the safety strap D, underneath each spring C C. Thus in the event of a spring breaking, no serious accident can possibly occur from that source. With this latter improvement, we think the carriage of Mr. Winans will endure the severest test any vehicle should encounter. The advantage of this improvement, is simplicity of construction, and its superiority over all other carriages for "ease of motion;" also that of short turning.

The design we here present, is constructed as follows: A bar of iron the required size and length, is taken and bent as repre-

sented by A A, and each extremity bolted to the springs C C at B B. The other extremities of the springs are connected to the hind axle and bolster, or bar in front, thus connecting the two axles together. The sides to the "toe board" F are iron, and likewise secured by the bolt B on each side. The front seat is applied as shown in the drawing; and for the rear part of the carriage a Phaeton body E of any desired shape or style is made—the shape of the bottom side to correspond with the iron bearer A A, or the latter to harmonize with the former. The body is constructed with a deep rocker, and when set on the bearers A A, is bolted thereto as represented in the engraving, thus doing away with the use of body loops or pump handles altogether.

Mr. Winans (though not a practical coach-maker) is certainly entitled to public favor for having made one of the best improvements in the carriage department.

Plate No. 57—Saladee's Extension Phaeton, No. 2.

The simplicity of construction which characterizes this design is such, as to render a detailed description utterly superfluous. The side elevation at once conveys the intended mode of its construction, showing that *side* and *rocker* are all sufficient. The seats are made and applied in the well known usual manner. The rocker being necessarily *deep*, it will be found that but few plank are sufficiently wide to take them from in one piece; therefore it is advisable to get them out in pieces and join them together before dressing up.

EDITOR'S TABLE.

DECEMBER - - - - - 1856.

TO OUR OLD FRIENDS.

With this No. of the Magazine your subscription *expires*, but we have reason to hope it will not remain expired any longer than you can write us a short letter, and enclose the amount for *another year*.

You have now in your hands an "exact sample" of the coming numbers for *Volume Third*, and from its enlarged and improved appearance you will perceive that the *third* volume will be of greater *practical* value to you than the two which have preceded it; therefore you can decide at *once* whether you desire its "monthly visits" another year or not. If you *do*, then show this No. to your friends and have them club in with you and forward your names immediately, and you shall have the volume complete.

The "Drawing Department" we have enlarged to *double* the usual size, and the *drawings* themselves in place of *one-half inch* to the foot are now made to a scale of about *one inch*. This enlarged size of the drafts will render them more *practicable* than to the former scale; for where drawings are made as small as *half inch* there are many important little points that *cannot* be represented sufficiently intelligible to be comprehended. Hence a great variety of finishes (important but *small* in themselves) must be omitted; but when we come to make a drawing to a *one inch* scale, (double the ordinary size) there is not a finish belonging to the exterior of the carriage that cannot be intelligibly illustrated even to the style of *lining* in the painting. As an illustration of this, compare one of the drawings in *this* No. to any in the ones preceding it, and you will be struck with the astonishing contrast between the two.

In this enlargement, it is needless to say, we have incurred a very heavy *additional* expense; but what is that expense to us, in comparison to the *additional* satisfaction we shall thereby be enabled to render to our army of *twelve thousand* readers?

From the hour we first embarked in our present enterprise, we started out with the fixed *determination* to "improve as we progressed;" and although we have made a *grand* step towards improvement in the next volume, we are by no means *satisfied*; nor do we intend to fold our arms at *this* point and claim *perfection*—no, no; there is still room to *improve*, and we shall continue, until by the multiplied aid of our "fellow craftsmen" we are enabled to adorn our Magazine with the *finest* COLORED *Steel Plate* engravings.

As we stated in the last No., since the Magazine has now gained a great degree of popularity throughout the United States and Canada, that it would be time and expense uselessly thrown away to send agents over the country *again* to solicit subscriptions. We shall therefore abandon that course **ALTOGETHER**. *Let those of our friends who expect again to be called upon by some of our worthy old agents, bear this in mind.* Therefore we would have it *distinctly understood*, that *all who wish to renew their subscription must forward their names by MAIL*, and for which purpose we furnish you (attached to this No.) a convenient blank to be filled up, and in which to enclose the money.

☞ All money carefully sealed and properly addressed (C. W. SALADEE, Columbus, Ohio,) shall come at *our* risk.

☞ All letters containing a larger amount than \$3 must be registered at *your Post Office*.

☞ All money current and bankable where it is issued, will be received at par for the Magazine.

☞ Where amounts exceeding \$10, is forwarded, procure bills as near the sum as possible.

☞ **And to insure the Volume complete, renew your subscription immediately.**

Notice.

Agreeable with a notice published in our last issue, we send attached to *this* a *blank order*, wherewith to renew your subscription. As no agents will be sent out to solicit subscriptions for the next Vol., we respectfully request your prompt attention in this matter, should you see proper to extend to us your patronage another year. The blank is of such proportion as to require to be folded but *two* ways, viz: in the first place, fold it directly in the centre, (lengthwise the sheet) after which insert the bills or draft full size, and fold in centre crosswise and it is ready for the envelope. This is simple and convenient, and if properly filled up, avoids the possibility of a mistake in the address of a subscriber.

☞ The January No. will be issued the 5th of the present month; (December. Send in your names immediately if you would secure the *Volume complete*.)

NOTICE TO CORRESPONDENTS.

Will those who have occasion to address us by letter be a little more careful about their address? Many write us, giving *only* the name of the town in which they reside, and *omitting* the State altogether. Others forget, indeed, to write their *name*. These careless parties very soon after write us a "fighting letter," stating they have written us before and we take no notice of it.—How can we, when you neglect to give us your address properly? We have a letter before us now dated "Elizabethtown, Oct. 21st, 1856," from a Mr. Stanley, which is the third letter he has written us on the *same* subject, and in neither one gives his *address*.

☞ Give your address in full, and *then* we will know your whereabouts.

IMPORTANT TO SHAFT AND FELLOE MANUFACTURERS.—A NEW MODE OF BENDING TIMBER.

"You may break, but you cannot bend me," is a phrase that has hitherto been applied indiscriminately to persons who are either very heroic or very obstinate. It has also been applied to certain woods, such as oak and *lignum vitæ*. A great deal of braggadocio has been put into the unconscious mouths of trees (if, by a figure of speech, we may talk of trees having mouths at all) about the stubbornness of heart of oak, and about the monarch of the forest never yielding to the storm; which, indeed, he seldom does, unless absolutely torn up by the roots; although Shakspeare, who was not a bad observer, talks of the wind making "flexible the knees of knotted oaks." But in plain truth setting sentiment aside, the unyielding nature of timber has been one of its disadvantages for many practical and scientific purposes. Give a bar of iron to a smith, or place a mass of material under the gentle persuasion of Nasmyth's steam hammer—and you may have what you will made out of it. You may have it moulded like clay by the hand of the potter; may expand it, or contract it; shape it and reshape it; twist and contort it; bend it into a sword or a ploughshare, an anchor or a rifle-barrel, a column for some airy yet substantial palace, or a girder for a suspension bridge. You may lengthen it into a line of rails for the swift passage of steam, or a Menai tunnel to span the arm of the sea, like some gigantic bracelet. Subject metal to the furnace, and you have a fluid stream, whereof you may cast an Iron Duke, or any other shape of man or god you please. Sullen and hard at first sight, this ductile substance is your very slave, in fact; a genie of the mine, who waits your bidding to do wonders; a Proteus, to whom is given the power to change into a thousand forms. Not so has it been with wood. Place a piece of timber under the hammer, and it is shivered into fragments; give it to the furnace, and it is consumed. You may saw and join it; you may carve it into fantastic and beautiful designs; but you have not hitherto been able to use it with that facile manipulation which belongs to metal.

One result of this deficiency has been a great circumscribing of the uses to which timber might be put; another result has been excessive waste of material. When, in building a house or a ship, or in making a piece of furniture, it has been found necessary to employ a bar of wood or a curved shape, there were no means at one time of obtaining this curve, but by searching for a branch which was naturally bent in growing (and which, of course, could be met with only rarely) or by cutting a solid mass of timber into the required form. In the latter process all the outlying parts of the wood—all those portions not included in the curve itself—were wasted, or were only available for very trivial purposes; for the curve, extending across the block and dividing it, would leave only small fragments of the material, of useless shapes, on each side. In the case of metal, the process is easy and obvious enough; you have merely to take a straight bar, heat it, place it beneath the hammer, and coerce it into the needful convexity. Metal, therefore, has had an immense advantage over timber on the very important grounds of facility and economy; for, in the one case you only use precisely what you want, while in the other you use more than you want. When Mr. Jones, having reached the summit of his earthly desires in obtaining the consent of Miss Smith to marry him (and also the consent of Mr. Peter Smith, and Mrs. Mater Smith), looks out for tables, chairs, and other *et ceteras*, wherewith to furnish that desirable cottage residence in which the happy couple are to take up their abode in the company of love and a young servant,

he pays more for these household comforts (meaning thereby, the tables, chairs, &c.) than he otherwise would pay, because of the waste of material necessitated in their construction. The case, however, is not now as it was formerly. In a happy moment, some mechanical genius bethought him of a process of bending timber by the application of heat to it.

Like the Reform Bill, however, it was only a step; and, if any old toryfied engineer with a dream of finality in his mind, had regarded the success already achieved as the summum bonum of such matters, Mr. Jones—not to speak of Mrs. Jones—would have had a right to quarrel with him. For Jones might have called his attention to the fact that the timber had a tendency to a debilitated constitution, very awkward in those articles of furniture, whereof the first requisite is strength; that it was weak and fragile, not unfrequently breaking under a moderate pressure, and sometimes absolutely unbending and returning to primitive straightness, like a young lady's carefully got-up curls on a damp day. All this Mr. Jones might have exhibited out of direful experience; but, of the reason—the cause of the effect—he would probably have been ignorant. The explanation, however, is not very abstruse. In the ordinary process of bending, the fibre is strained. Thus, any curved piece of wood is weakest in the sharpest part of the curve. Scientific men, indeed, have argued that, for practical purposes, great curves are impossible; and they have defined their theory thus:—To bend a piece of wood, you must extend the outer circumference and compress the inner. Now as wood is inexpandible, you cannot bend it without injuring the fibre, and consequently weakening the whole mass.

Such was the orthodox theory; but, in the same way that the knowing ones on the race-course often make the most astounding mistakes in their forecastings to their own great pecuniary disadvantage and the edification of a censorious world, so will it frequently occur that professed scientific men, too mindful of abstract theories to make practical innovations, find themselves suddenly confronted with some new application of those theories, or some complete reversal of them. These audacious exhibitions of scientific heterodoxy have of late years been more common in America than elsewhere. The active, volatile, knowing States' man is as little disposed to submit to antiquated authority in intellectual matters as in political affairs. He will not have an hereditary monarchy, guarded with fictions of divine right in the regions of discovery, any more than in the physical territories which he occupies. He will have an elective president in the Republic of Ideas; and he will reserve to himself entire liberty to set him aside when his time for being useful has gone by. Every man in that Republic shall have a vote; and the best candidate shall carry the day. Therefore has it come to pass that Jonathan, disregarding the assertion that wood cannot be bent without weakening the fibre, has set to work to see how he can overcome the difficulty, and has discovered a method which, to judge from the accounts given by the most eminent engineers, both of America and England, will be of the greatest service in ship building and domestic architecture, and in the construction of all pieces of furniture in which it is necessary to employ curved timber. It has been already so employed in the United States, where a Roman Catholic cathedral is surmounted by a dome fashioned out of wood bent by the new process. This dome has been found to be lighter, stronger, cheaper, and more elegant, than the domes usually formed of metal, brick, and papier-mache.

By this invention, which has been patented in America, and is now just introduced into England, the strength of the wood is in-


creased at least seventy-five per cent. at the point where strength is most required. The curve, moreover, never relaxes. The timber, as in the old process, is first subjected to the influence of steam, which softens the whole mass, and puts it in a fit state for the action of a machine. The principle of bending, as employed in this new application, is based on end-pressure, which, in condensing and turning at the same time, destroys the capillary tubes by forcing them into each other. These tubes are only of use when the tree is growing; and their amalgamation increases the density of the timber, the pressure being so nicely adjusted that the wood is neither flattened nor spread, nor is the outer circumference of the wood expanded, though the inner is contracted. Now, the error of the former process, as expounded by competent judges, has arisen from the disintegrating of the fibre of the wood by expanding the whole mass over a rigid mould. Wood can be more easily compressed than expanded; therefore, it is plain that a process which induces a greater closeness in the component parts of the piece under operation—which, as it were, locks up the whole mass by knitting the fibres together—must augment the degree of hardness and power of resistance. The wood thus becomes almost impervious to damp and to the depredations of insects, while its increased density renders it less liable to take fire; and the present method of cutting and shaping timber being superseded, a saving of from two to three-fourths of the material is brought about. The action of the machine throws the cross-grains into right angles; the knots are compelled to follow the impulse of the bending; the juices are forced out of the cells of the wood, and the cavities are filled up by the interlacing fibres. In the same way, you may sometimes see in the iron of which the barrels of muskets are made a kind of dark grain, which indicates that the particles of the metal, either in the natural formation or in welding, have been strongly clenched in one another. These specimens are always greatly valued for their extraordinary toughness, as well as for a certain fantastical and mottled beauty.


Another of the good results of this new method is that the wood is seasoned by the same process as that which effects the bending. The seasoning of wood is simply the drying of the juices, and the reduction of the mass to its minimum size before it is employed, so that there shall be no future warping. But, as we have already shown, the compression resorted to in the American system at once expels the sap; and a few hours are sufficient to convert green timber into thoroughly seasoned wood. Here is an obvious saving of time, and also of money; for the ordinary mode of seasoning, by causing the wood to lie waste for a considerable period, locks up the capital of the trader, and of course enhances the price to the purchaser. Time also will be saved in another way, in searching for pieces of wood of the proper curve for carrying out certain designs. "How delighted," says Mr. Jervis, the United States' inspector of timber, "will the shipwright be to get clear of the necessity of searching for crooked pieces of timber! There need no longer be any breaking of bats in the frame, as we have been wont to break them. We shall see numbers one, two, and three futtocks at least, all in one piece." An English engineer (Mr. Charles Mayhew) remarks that one of the advantages of the American method is that, "in its application to all circular, wreathed, or twisted work, it not only preserves the continuous grain of the wood, which is now usually and laboriously done by narrow slips of veneer glued on cores cut across the grain, with many unsightly joints, ill concealed at best; but it will materially reduce the cost of all curved work, which now varies, according to the quickness of the sweep,


and will give the artist greater freedom in his design, by allowing him to introduce lines which are now cautiously avoided in order to prevent the cost of execution." Dr. Hooker, Mr. Fairbairn, Mr. Rennie, Mr. Galloway, civil engineer, and other scientific men, confirm these judgments. A specimen of bent oak now lies before us, and exhibits a beautiful continuity in the sweep of the fibres.

Timber-bending has reached a new stage of development; and it is not too much to anticipate that it will have considerable influence on the industrial arts.


BOUTON & REID, 67 BOWERY, N. Y. CITY.—We are happy to notice that these enterprising young men have succeeded in establishing a business in the Coach Hardware and Trimming line, that compares favorably with the older and most extensive houses in the East. They have spared neither pains nor expense in furnishing their house with the greatest possible variety of every article of stock used in the construction of carriages, and which circumstance, has, for the last year, made them extremely popular among the craft generally. We know of no firm more worthy the notice of our friends than that of Bouton & Reid.

A HINT TO PROPRIETORS.—Any proprietor in want of a *foreman* who is in every way capable of superintending a shop, can be accommodated by letter addressed to us, when a correspondence between the parties will be opened direct. The gentleman in question is, in the fullest sense, a *thorough bred coach-maker*, and one of the most *correct* mechanics of whom we have any knowledge; having had over twenty-five years experience.  The best of references can be given. We consider this a rare chance for any person wanting a man of this stamp. Apply immediately.

 Quite a number of our readers, among them proprietors, have inquired of us respecting the kind and quality of shaft irons, or shackles made by the Messrs. D. H. Smith & Co., of Plantsville, Conn. We have never used them ourself, but from the manner in which they are spoken of by the most influential coach-makers in the East, we are warranted to recommend the productions of this factory to the favorable notice of the craft everywhere.

ALFRED E. SMITH.—Why should so many of our readers keep annoying us with inquiries respecting the *kind* and *quality* of axles manufactured by the above named gentleman? We have before stated that he is among the *best* axle manufacturers in the United States, and from the constant use of *his* make, we have never yet had the slightest reason to *repent* having recommended him in the highest terms of praise.  Try his axles, and you will be satisfied as to the correctness of our assertion.

WM. DUNLAP.—While in Cleveland the other day, we saw a very fine Rockaway, from the factory of Wm. Dunlap, Philadelphia. It was something *new*, and its general appearance was such, as to attract the attention of every one who saw it. If we can get a drawing of this carriage, we will give our readers something worth seeing.

 Messrs. Hayden & Fairbanks, of Detroit, Mich., we are informed, have opened a large house, devoted to the sale of Coach Hardware and Trimmings. We shall have occasion to give further particulars of this house hereafter.

MISSING NUMBERS.—If any of our subscribers are lacking certain numbers since April, to complete the present volume, we will take pleasure in furnishing them, if they will but *notify* us, stating the numbers *missing*.

Our Baker's Budget.

“My opponent, Mr. Speaker, persists in saying that he is entitled to the floor. Whether this is so or not I shall not condescend to inquire. All I have got to say, is, that he will most certainly get *floored* if he interrupts me again.”

A fashionable gent tripped up on orange peel the other day and broke his neck.—A brass locket, three cents in change, a bottle of hair oil, and a whalebone cane are waiting redemption at the Coroner's office.

The “Goecester News” tells of a man who lost a favorite *c w*, and who wound up an eulogy on her by saying: “she was as handsome as a *school marm*.” It must be a great relief to know that the question of a school marm's beauty can now be so easily decided.

In an action lately, Mr. James said it was a lamentable thing to see “two tailors in one suit.”

A Jockey sold his horse for “an honest nag,” for he always threw his rider when he threatened to.

The learned man who cut the end of his thumb off to see what the veins looked like, is assisted by the chap who contends that madness is a mineral.

A visitor was contemplating the Niagara Falls the other day when a verdant looking individual came up and asked him the name of that *River*.

A wag in New York, seeing a man driving a tack into a card through the letter T of the word “Boston” printed on it, seized the latter and exclaimed, “Why! what are you about? Don't you know that laying *tax on tea in Boston* once raised a thunderin' muss there?”

A gentleman residing in Boston, as the story goes, seeing an Irishman removing an embankment from a dwelling, inquired, “Pat what are you doing?” “I am opening the cellar winder, to be shure.” And what are you doing that for?” “May it please your honor,” said Pat, “to let out the *dark*.”

Gatherings by the Sea Side.

The wisest man is generally he who thinks himself the least so.—[BOILEU.

Some books, like the city of London, are far better for being burnt.—[TOM BROWN.

Get your enemies to read your works in order to mend them; for your friend is so much your second self, that he will judge, too, like yourself.—[POPE.

He that speaks ill of another, commonly, before he is aware, makes himself such an one as he speaks against; for if he had civility and good breeding, he would forbear such language.—[SELDEN.

To wisdom he's a fool that will not yield.—SHAKESPEARE.

Art must anchor in nature, or it is the sport of every breath of folly.—[HAZLET

There is this difference between happiness and wisdom; he that thinks himself the happiest man, really is so; but he that thinks himself the wisest, is generally the greatest fool.—[COLTON.

When we are young, we are lavishly employed in procuring something whereby we may live comfortably when we grow old, and when we are old, we perceive it is too late to live as we proposed.—[POPE.

To be vain is rather a mark of humility than pride.—[SWIFT.

No ashes are lighter than those of incense, and few things burn out sooner.—[LANDER.

One should not dispute with a man, who, either through stupidity or shamelessness, denies plain and visible truths.—[LOCKE.

Men are every day saying and doing from the power of education, habit and imitation, what has no root whatever in their serious convictions.—[CHANNING.

If the sacrifices to virtue are often hard to make, it is always joy to have made them, and a person never repents having done a good action.—ROUSSEAU.

LIST OF PATENTS GRANTED FOR IMPROVEMENTS IN CARRIAGES TO DATE.

WHIFFLETREES.—George Kenny, of Milford, N. H.: (assignor to himself and G. N. Davis,) of Boston, Mass.: I claim the combination of rubber washers with the whiffletrees, and about the king bolt and the boxes arranged with the same, substantially as described so as to protect the rubber and the boxes from the entrance of water, dirt, &c., thus preventing the wear of the parts.

WHIFFLETREES.—George Kenny, of Milford, N. H., assignor to himself and Geo. N. Davis, of Boston, Mass.: I claim the combination of rubbers about the bolt on which the whiffletree turns within the cylindrical strap and between the braces c c d d, so that it may be compressed, and thereby operate as a spring, as specified, as well as serve to keep out the dirt, and prevent the wear and noise.

DETACHABLE SHAFT COUPLING.—Peter Teare, of Philadelphia, Pa.: I do not claim the split sleeve, for coupling shafts, whether constructed with single or double conical surfaces, as that is well known.

But I claim the plate or ring D, constructed and arranged as described, for the double purpose of operating the coupling of the shafts and also for releasing the coupling.

PLEASURE CARRIAGES.—O. W. Saladee, of Columbus, Ohio: I claim the longitudinal braces, A, in combination with the double circle, B, by which means the third wheel is firmly connected to the hind axle, and wheels, in the manner and for the purposes set forth.

ATTACHING SLEIGH BELLS TO STRAPS.—Abner G. Bevin, of Chatham, Conn.: I claim making the bells, B, without the shanks, and having holes, e, made through them to receive the staples b, which pass through the strap, A, and cover, c, substantially as described for the purpose set forth.

OMNIBUS.—D. O. Macomber, of New York City: I claim the arrangement, substantially as specified, of two series of independent seats on each side of the carriage-body; but this I claim only when the backs of the seats are curved, and the front edge set obliquely, as set forth and for the purpose specified.

I also claim, connecting the body with the frame of the running gear, so that it will rock thereon, substantially as described, in combination with the screw-bolts and adjusting nuts at the ends, or equivalent therefor, for the purpose of setting the body at any desired inclination with the frame of the running gear.

And finally, I claim, connecting the brake levers with the shaft of the stop and foot-wheel,

substantially as specified, in combination with the strap which passes into the inside of the carriage-body, to be operated by the passengers, if required, substantially as described.

SECURING SPOKES IN THE HUBS OF WHEELS.—Robert Moor, of Westport, Ind.: I do not claim as my invention, the device of two screw-nuts working on one bush, for the respective purpose of securing the spokes in the hub, and the hub on the axle.

Neither do I claim the dove-tailing the spoke within the hub; knowing these devices to be old.

But I claim, first, the described oblique form of spoke mortise, enabling all the necessary beveling and taper of the spoke to be on the side which is in advance, when the wheel is rotating forward, leaving the rear side straight for its entire length—thus adding to the strength, and reducing the labor of constructing the spoke, as fully explained.

ADJUSTING CARRIAGE TOPS.—C. W. Saladee, of Columbus, Ohio: I disclaim the use of one straight rod or bar of iron, when placed on the inside of the back to the seat, with both extremities passing through a square hole in the lower end of the top-props, and operated upon by a lever, as that forms no part of my invention.

Neither do I claim the long perpendicular rods at the back of the seat, and connected to the back bow, as that patented by Mr. Huntington.

But I claim the lateral rod, D D, in combination with the top props A.

I also claim the perpendicular rods, E E, in combination with the lateral rod, D D, and the back of the seat for the purpose of throwing back or raising up the top, while seated in the carriage, substantially as set forth.

ATTACHING HUBS TO AXLES.—John M. Riley, of Newark, N. J.: I do not claim separately the collar, F H, irrespective of their arrangement, as shown.

Nor do I claim springs interposed between the collar, G, and the inner end of the box, for they have been previously used, although arranged in a different way from that shown.

But I claim the collar F H, placed upon the arm, B, in combination with the tube E, nut C, key D, and elastic ring, K, when the above parts are constructed and arranged as shown, for the purpose specified.

STEAM WAGON.—John Percy, of Albany, N. Y.: I claim, first, the two trucks, C C, attached to the underside of the frame A, connected by the perch G, and turned by means of the rods, H, which are fitted in the inner ends of the frames, b, of said trucks, and connected to the rack, I, or an equivalent device.

Second, I claim connecting the axles, d, of the wheels, D, with the connecting rods, e', of the steam cylinders by means of the gearing, e g, and cranks, h, substantially as described.

Third, I claim the arrangements of the trucks, C, C, frame, A, steam cylinders E, boilers, F, and the device for turning and guiding the trucks, as shown and described for the purpose set forth.

BORING AND MORTISING HUBS.—Henry Hayes, of Quincy, Ill.: I claim, first, the adjustable frame, B B B, with its attachments, substantially as described, and for the purposes set forth.

Second, the application of the rider, H, to the carriage, G, substantially as described and for the purposes set forth.

Third, the combination of the index I, the lever, s, and the roller, t, substantially as described and for the purposes set forth.

WHIFFLETREE FOR DETACHING HORSES FROM CARRIAGES.—N. N. Selby, of Fairview, Pa.: I claim, the application of the spring, b, the whole length of the whiffletree, and turned over at each end, forming loops for the harness tugs, in combination with the bolt f, pins j, and fulcrum d, operated by the levers g and h, substantially as described.

DRESSING FEELIES.—Wm. M. Bulloch, of Marcy, Ind.: I claim the rotating ring or band, G, placed within the stationary ring or band, F, having the cutter head shaft, E, fitted to it, the shaft, E, being rotated by the gearing, C D, as shown and described, for the purpose specified.

BORING HUBS FOR BOXES.—Sam'l H. Yocum, of Shelbyville, Ind.: I claim, operating the bits, e e, by the adjustable feed rods, n n, and lever m, with the mechanism described, or its equivalent, in combination with the eight anti-friction wheels c c c c c c c, temper screws o o and k k, that confine the hub D, and expose a true circle to the bits, e e, at any desired distance from the hub.

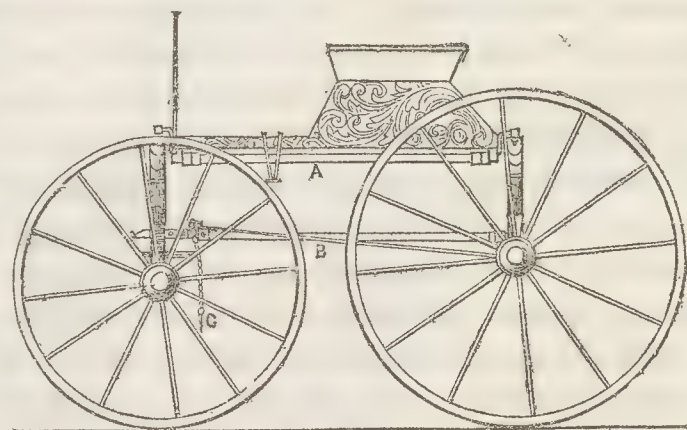
ATTACHING HORSES TO VEHICLES.—George H. Gray, Sen., of Clinton, Miss.: I claim the plates, C, attached to the harness as shown, and the plates, B, on the shafts, A, with loops or clasps, a, attached to the levers, D, with the pins, h, on them, and the dogs, F, levers, G, and rods, H, as described.

MACHINE FOR PAINTING CARRIAGE WHEELS.—S. B. Tuller, of Worthington, Mass.: I claim, the vibrating and rotating shaft, C, passing into the tub, B, and arranged and operated as shown, or in an equivalent way, for purpose specified.

BENDING WOOD.—Edwin, Armas, and Cheney Kilburn, of Burlington, Vt.: We claim the bending of wood by forcing it endwise of its fibres into a mold, which is closed on all its sides, but has an open end, is curved longitudinally in the required form, and has the dimensions of its internal transverse section of the piece of wood, causing the wood to be confined in a lateral direction during the bending process, for the purpose of preventing the separation of the fibres, as described.

Here is a recipe for an editor's drink—Take one pint good whisky; stir in well one spoonful of whisky, then add another pint of whisky; beat carefully with a spoon, and keep pouring in whisky. Fill a large bowl with water, and make the servant set it out of your reach. Take a small tumbler, pour in two spoonfuls of water; pour out the water and fill up with whisky, and add to the above. Flavor with whisky to your taste.

ROSENCRANTZ'S EXTENSION WAGON.



This improvement was patented May 6, 1856, by Mr. E. D. Rosencrantz, of New York City, and as illustrated in the engravings, shows that by the use of a sliding-barperch and body, a one seat buggy can be transformed into a two seated wagon, thus making a convenient family vehicle.

Mr. Willard H. Smith, 308½ Grand Street, New York, is the agent for this invention, to whom applications for shop, county, or State rights should be addressed.

